Clinical Lectures
ON
SUPPURATIVE PERIOSTITIS AND EPIPHYSITIS.

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LECTURE II.

GENTLEMEN,—If the explanation I offered you in my last lecture as to the cause of suppurative periostitis among children be correct, you might naturally inquire how it happens that in instances of inherited syphilitic epiphysitis suppurative periostitis so seldom occurs. I would in reply remark that it seems to me syphilitic epiphysitis is partly a disease affecting the periosteum surrounding the extremity of the bone, and, like most syphilitic changes, its tendency is towards recovery or to permanent thickening of the part, rather than to suppuration. The supply of blood in cases of this kind, passing from the soft structures to the actively growing end of the bone, is interfered with by the changes going on in the periosteum, and so degenerative alterations occur in the part and separation of the epiphysis takes place. The pathology therefore of this disease differs from that of the affection we are considering, although its results, so far as the separation of the epiphysis and diaphysis is concerned, are similar. I shall have more to say on this subject when speaking of syphilitic disease of the osseous structures, and I would here only remark that you must carefully avoid falling into the common error of supposing that similar pathological appearances are universally produced by like causes.

Epiphysitis is evidently not confined to infants. We have had a marked case of the kind under our care in the instance of a previously healthy country lad.

W. Y——, aged fourteen, was sent into the hospital suffering from acute inflammation of the shoulder-joint. In this case the lad's parents were country-people; his brothers and sisters (five in number) "were never ailing." Fourteen days before W. Y—— came under my care, his left shoulder became excessively painful and inflamed; matter formed, and an abscess opened half-way down the arm. On admission, we found the soft parts covering the patient's shoulder and upper parts of his arm were greatly inflamed, and a profuse discharge of pus poured away through various openings in the skin. The boy was jaundiced, he had a dry tongue, was delirious at night, had a very high temperature, profuse perspirations, and diarrhœa; in fact, he was in the last stage of septicæmia. On passing a finger up the sinuses towards the head of the humerus, I found the epiphysis was separated from the diaphysis, and that the bone was bare of periosteum for an inch or so below its upper extremity. As you see from this specimen, the upper epiphysis in this instance is distinctly detached from the diaphysis, the medullary structure of the latter being in a state of suppuration, but the cartilages of the glenoid cavity and head of the humerus are healthy.

The disease no doubt in this case commenced between the diaphysis and the epiphysis, and extended for some distance along the periosteum; and had the patient lived, we should subsequently have found the shaft of the bone bare and necrosed, as in the instance of W. C——, which I described to you as an example of "acute periostitis" of the fibula. In passing, I would observe that we may learn an important lesson from the details of the last two cases I have related—which is, in deep-seated acute abscess occurring in children or young persons, especially if in the legs, thighs, or along the humerus, make a point of inserting your finger through the incision you have made to allow the pus to escape, and carefully examine the condition of the bone and the direction in which the abscess runs; for you will not unfrequently find in cases of this description that the shaft of the bone in the neighbourhood of the collection of matter is denuded of periosteum, and very possibly the cavity of the abscess passes towards the upper or lower extremity of the bone, the inflammatory action having commenced at the line of ossification between the epiphysis and diaphysis, and extended along the periosteum of the shaft, ultimately involving the soft structures of the limb. As an example in point we may refer to the following case.

C. H——, aged four years, admitted into hospital on July 1st. This boy's father died of consumption, and his mother is at the present time attending the Hospital for Diseases of the Chest at Brompton. There is no history of syphilis. The patient was attacked with pain in the right knee seven days before coming into hospital, and a few days afterwards the joint became swollen. He was then seen by Mr. Pearce Gould as an out-patient, and at once ordered into the hospital. At this time the report states that C. H——'s right knee was swollen and inflamed, and below the joint fluctuation could be felt; the redness and swelling extended beneath this joint. The child was suffering from high fever and great constitutional disturbance. None of the other joints of his body were affected. The day after admission an incision was made immediately below the outer part of the joint, and another about three inches down the leg. The finger could be passed through these openings down to the tibia, which was denuded of periosteum, and a probe was readily inserted through the tibia between the diaphysis and upper epiphysis. Pus escaped freely from the wound, and a drainage-tube having been passed through the incision, the leg was fixed to a back splint. Subsequently it became evident the inflammatory action had involved the knee-joint, which continued red and swollen after the treatment above referred to. Free incisions were therefore made on either side of the patella, and drainage-tubes passed through the joint. The leg and thigh were kept absolutely at rest, and well-applied pressure was made on the affected joint with cotton-wool and an elastic bandage; the dressings were changed night and morning so as to keep the parts clean. The fever subsided; and although our patient did not leave the hospital until the end of November, he was then able to walk about the wards, and, with the exception of an anchylosed joint, has perfectly recovered the use of his limb.

In this case I have little doubt that the disease commenced at the line of junction of the upper epiphysis and diaphysis of the right tibia; the inflammatory action extended upwards into the knee-joint and down the periosteum along the shaft of the bone. The free incisions relieved the tension, and, together with the rest and pressure applied to the part, prevented the inflammation from extending.

Before leaving this subject I must refer to one other case illustrating the circumstances of what is usually described as suppurative periostitis of the trochanter, or upper extremity of the femur. A. B——, aged three years, a sickly little girl, but in whose family history no evidence of tuberculous disease could be detected. Mr. Glassington reports that about a month before the child came into hospital she fell down a flight of stairs, and a day or two afterwards she complained of severe pain about the left hip. The parts became much swollen in consequence of the injury. The patient was admitted into hospital on Nov. 19th. Her left thigh was flexed on her abdomen, and the parts round the hip-joint involved in a large abscess. I had the child placed under the influence of ether, and cut into the collection of matter. On passing my finger down to the trochanter, I found that it moved freely on flexing and extending the thigh, but the head of the femur was separated from the shaft, and remained immovable in the acetabulum. An opening was made through the back of the thigh, and drainage-tubes were passed through the limb so as effectually to prevent matter from collecting round the neck or upper part of the femur. The limb was fixed to a Thomas's splint, and subsequent extension from the foot of the bed was employed, so as, if possible, to counteract the tendency of the muscles to draw the end of the bone backwards on the dorsum ilii. The patient remained under treatment until the following April, when she was able to move about the wards, although the left leg was an inch and a half shorter than the right one. In spite of extension and all we can do, it is generally impossible to prevent shortening of the affected limb in cases of this description, for the muscles passing from the pelvis to the thigh are apt to drag the upper end of the femur, separated as it is from its head, on to the dorsum ilii. I expect cases of this kind are those which have given rise to the impression that shortening of the limb is a symptom of hip-joint disease; but in truth these are hardly to be con-

sidered as genuine cases of morbus coxarius, but rather of inflammation commencing at the line of junction of the diaphysis and epiphysis, extending to the synovial cavity and leading to abscesses in the surrounding soft tissues. I by no means assert that cases of the kind always terminate in this way; for instance, had this particular case been brought under our care at an earlier stage of the disease, it is quite possible, by means of rest and proper treatment, suppuration would have been prevented, and the injured structures have resumed their healthy functions. In cases of epiphysitis, commencing at the line of junction between the head and neck of the femur, it follows, from the anatomical relations of the part, that the inflammatory action must extend to the capsule of the joint rather than to the periosteum of the shaft of the bone, and so the less frequency of acute periostitis of the upper end of the femur than of the tibia or fibula.

The question may naturally be asked, Why place so much stress upon the disease I have attempted to describe being epiphysitic? It is evident, if the line of junction between the epiphysis and diaphysis be disposed to take on an inflammatory action after injury, because it is an actively growing structure, that the same reasoning would apply to the deeper layers of the periosteum, because the long bones increase in bulk from the osteoblasts of the periosteum. This may be perfectly true, and the point at once conceded if it be granted that suppurative periostitis commences more frequently in the epiphysis than in the periosteum in proportion to the rapidity of the growth in length of a bone as compared with its growth in circumference. From a practical point of view, however, we find that the majority of cases of suppurative periostitis involve, if they have not commenced at, the line of junction between the diaphysis and epiphysis, and I think it is important to bear this fact in mind. We should not rest satisfied, in cases of this description, with merely incising the soft structures and periosteum in one or two places along the shaft of the bone, but invariably make a special examination as to the condition of the epiphysis, and, if necessary, introduce drainage-tubes so as to prevent matter from collecting in and about the head of the bone. In this way we may save a neighbouring joint, and probably the medulla in the cancellated tissue of the diaphysis, from suppuration, and preserve the patient from septo-pyæmia—the almost constant result of osteo-myelitis. In cases of epiphysitis, or suppurative periostitis, in which, as in the last instance I mentioned, you find a limited portion of the shaft of the bone denuded of periosteum, the diaphysis perhaps being separated from the epiphysis, effectual drainage must be established in the first instance. Among children the disease may then pass away without necrosis of bone. If, however, after effectual drainage, combined with rest and well-applied pressure, the disease continues to increase—it may be a portion or the whole of the diaphysis being separated from the periosteum,—it is necessary to cut down and remove the denuded portion or the bone which acts as a foreign body keeping up the discharge. Under these circumstances, never take away the epiphysis; in fact, remove nothing but the bare bone—it may be the femur, tibia, or any other long bone. Amputation of the limb might be necessary, but would, of course, only be resorted to in order to save life.

NOTES OF A CASE OF THROMBOSIS: WITH REMARKS.

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IN June I was called to see a lady of forty-three years of age. She was strongly built, but stout, and said that, as a rule, her health was good until the present illness. She was married, but had no children. She never had rheumatic fever, or suffered from difficulty of breathing; her habits were temperate. A short time previous to my seeing her, whilst taking tea about four o'clock in the afternoon (during a thunderstorm), she complained greatly of the heat, and was momentarily seized with vomiting, shivering, and a feeling of faintness, but she did not lose consciousness. For an hour or more she was powerless, and suffered from acute pain all over the body; as this attack passed off, and she recovered herself somewhat, she complained of the right leg feeling stiff, hot, and extremely painful, and in the evening it began to swell.

On the following morning, June 10th, I found her lying in bed almost helpless. The respiration hurried; pulse 130; temperature 102°; complexion sallow; intellect clear, with a tendency, however, to lethargy. At times there were convulsive seizures of the facial muscles at the angles of the mouth, and of the right upper extremity. The urine high-coloured, loaded with lithates, but free from sugar or albumen. Tongue dry and brown. Heart-sounds free from murmur; action regular; the first sound obscure at the base. The right leg was uniformly swollen from Poupart's ligament to the toes; in the upper part of the thigh it was tense, hard, and unyielding to gentle pressure, but towards the toes this condition gave place to mere œdematous swelling; there was great tenderness over some parts of the limb, especially in the popliteal and Scarpa's spaces; there was also a tendency to discolouration of the cuticle in these regions more particularly. She complained now of a wearisome, dull, aching pain, with inability to move the limb. The external iliac, femoral, popliteal, and posterior tibial arteries were found to pulsate. The limb was wrapped in cotton wool, and iodide of potassium with bark, and full doses of carbonate of ammonia, were administered every three hours.

June 11th.—Has passed a restless night. Tendency to subsultus and wandering delirium. Does not complain of pain in the leg unless it is moved. The evacuations are passed involuntarily. Pulse 112; respiration tranquil; temperature normal. It may be noted that the temperature of the limb was the same as that of the body generally, and from first to last there was no marked deviation in this respect.

16th.—The limb is softer, otherwise there is no marked change, excepting occasional attacks of rigor and vomiting.

18th.—Is greatly depressed. The skin feels cold and clammy. There are repeated rigors, with tendency to vomit. Sphincters incompetent. Tongue dry and brown. Temperature normal; pulse 126. Bedsore forming. To take steel, quinine, brandy, and champagne.

23rd.—Is gradually becoming weaker. The swelling of the limb is less tense, and gives a feeling of fluctuation. An incision gave issue to some bloody, slightly purulent material.

27th.—Has had diarrhœa for the past two days. Pulse 180; respiration 32; temperature 99·6°. Says that she is unable to breathe. The abdomen is distended and tympanitic. Appears to be sinking.

28th.—Is dying. The pulse is 100; respiration 30; temperature normal. The breathing is dry, harsh, and tracheal. Her condition now is markedly different from what it has been. Instead of the tendency to coma, with subsultus, the eyes are bright, and the intellect fairly clear.

Necropsy, twenty-four hours after death.—The brain-substance was of normal consistence and apparently healthy; the sac of the arachnoid membrane was distended with fluid, and some colloidal hæmorrhagic change had taken place in the pia mater. The arteries were free from plugging and atheroma. On opening the thorax, the lungs were found fully distended and healthy. The heart was free from coagula or fluid blood; the muscular tissue was fatty; the valves were healthy. The right ventricle was dilated, and the walls were thin. The liver was pale, granular, and fatty. The kidneys were large and flabby. The iliac and other arteries going to the diseased limb were healthy; but the iliac, femoral, popliteal, and deep veins were occluded by coagula, of the nature of a non-laminated thrombus, soft, dark-coloured, and jelly-like, and breaking down more or less in places, but not purulent; there was no sign of organisation or adhesion to the inner coat of the vessels; excepting around the valves, the tissues around the vessels and the deeper fascia of the limb were breaking down and infiltrated by grumous-looking fluid and coagulated blood.

Remarks.—The interest of this case is referable to its causation. The formation of thrombi in veins without phlebitis is much more common than is usually supposed, and especially in the veins of the dura mater of the brain and the rachidian veins of the spinal cord. In my opinion many of the obscure diseases of the columns and grey matter of the cord may be traced to this as their primary cause, especially in the rheumatic, nervous diathesis, without any disease of the coats of the vessels. In the case just described, the

primary cause was undoubtedly due to extreme depression (paralysing agency) of the sympathetic and vaso-motor nerves, induced by fright of the thunder and the extreme heat; it was a wonder that my patient had not died at once. In considering more carefully the cause of this thrombosis, we must bear in mind that coagulation of the blood in a living vessel is determined by two prime factors—namely, by some hindrance to the blood-flow, or by some impediment arising from an irregularity in the inner wall of the vessel, which increases the friction between it and the passing blood. In the first place, it has been shown that the walls of the right heart were thinned, weak, and fatty, so that this condition alone ought to be taken as a sufficient cause for the retardation of the blood-current and subsequent coagulation; but independently of this, there was the shock, producing paralysis of the vaso-motor-nerves, governing the whole of the circulatory apparatus. Still it is a question to my mind whether this patient would not have recovered, without the unfortunate thrombosis, provided there had not been some inherent weakness or defect, not so much in the vessels occluded, as in the valves which help on the venous flow from the lower limbs.

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FOUR EXCISIONS OF THE TONGUE, WITH PRELIMINARY TRACHEOTOMY IN THREE; REMARKS.

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(Concluded from p. 236.)

THE next case I need only give in very brief outline, for the sake of completing the group. It is recorded at length in the Transactions of the Clinical Society of London for this year, and abstracted in THE LANCET for April 5th, 1879.

CASE 2.—W. E——, a gardener, aged forty-nine, had had an epithelioma of the tongue for some time. Having determined to remove it thoroughly by Syme's method, I also determined to perform a preliminary tracheotomy for the reasons already given. On April 3rd, 1878, this was done under chloroform with great ease. A Trendelenburg's cannula was inserted and inflated, and subsequently the tongue was removed, after division of the lip, jaw, and soft parts, down nearly to the hyoid bone. It was removed in two transverse sweeps of the knife, cutting half of the organ at a time, to allow of each lingual artery being ligatured separately. The next day the nostrils were plugged with cotton wool, and the mouth closed and covered with a well-fitting pad. A silver drain-tube was also adjusted in the floor of the mouth, over the end of which a rubber tube was fitted to carry off all discharge from the mouth into a basin of Condy's fluid at the bedside. He was thus obliged to breathe by the tracheal opening, and by it alone. This was kept up for several days, until the stump of the tongue &c. was comparatively clean. Later he was allowed to breathe by the nose alone (the mouth being kept still strictly closed and padded), and the tracheal wound was allowed to close. Finally, the pad was removed from the mouth. All this time the latter was freely cleansed with detergents, all putrid discharge being carried away down into the basin of Condy by the drainage-tube. The patient made a good recovery as recorded *loc. cit.*

In the following case we have a different operation, though the same after-treatment in the main; a somewhat more detailed description will therefore be necessary.

CASE 3.—J. R——, aged forty-nine, had noticed white patches on the tongue and inner surface of cheeks, close to angle of mouth, for about last three years; in fact, the condition commonly called ichthyosis glossis was well marked. Having given a fair trial to iodide of potassium, and finding no benefit, it was determined to remove the organ.

Operation, April 9th, 1879.—First performed tracheotomy under chloroform, removing a circular piece of anterior wall of trachea, consisting of half the depth of the cricoid and the whole depth of the first ring. All this was done with remarkable ease. Trendelenburg's cannula, modified to suit my own views, was now introduced, and gave rise to some dyspnœa, as is usual on its inflation. The latter checked a little oozing from a small vein wounded in opening the trachea very well, as in the modified cannula the bag swells not only within the trachea, but external to it—namely, in the wound of soft parts.

As soon as patient was breathing quietly, I made an incision, three-quarters of an inch long, just above the hyoid bone in the middle line, and passed a knife from this into the mouth, which emerged at the frænum. The mucous membrane along the left floor of the mouth was now divided close to the jaw. I then passed a curved bistoury from the frænum exactly in midline out at the base of the dorsum of the tongue not far from the front of the epiglottis, and cut forward, dividing the organ into two halves. A loop of wire was then passed through the hole in the floor of the mouth and over the diseased half, which had been well cleared back to its base by knife and finger, the anterior pillar of fauces being partly divided besides. When well home it was tightened and shortened by a half turn every half minute. While this was going on, the other half of the tongue was examined, when it was found that at one point near the tip the epithelioma had crossed the middle line, extending for about an eighth of an inch into the other half. On this account I removed the anterior part of the right half well beyond the disease with another écraseur. This one cut twice as fast as the other, and one artery, the ranine, spouted at the last, but was easily tied. There was no hæmorrhage from the other half when the wire rope had done its work. A sponge was now removed from the pharynx, which had been put there before the cutting part of the operation as an extra precaution against hæmorrhage. The cannula was also removed, and the man was put to bed. In the evening I put a silver drain-tube through the opening in the floor of the mouth, and attached a rubber tube to it, the end of which rested in a basin of carbolic lotion. He was given nutritive enemata with half an ounce of brandy included every four hours. Tracheal wound closed for present with pad of cotton-wool, there being no fear of breathing septic matter until suppuration had set in.

April 10th.—Twenty-five hours after operation I inserted an ordinary tracheotomy tube into the tracheal opening under chloroform, as the patient was sensitive. The nose and mouth were now completely closed with pads, secured with elastic around back of head, and patient was compelled to breathe only by the tracheal opening. Pads changed whenever soiled. The tube produced a good deal of irritation, especially when interfered with, or when swallowing was necessary. The drainage from the mouth was now perfect, as the patient remained always in sitting or semi-recumbent posture against a bed-rest. Detergents were freely used. Nutrient digested enemata were given every sixth hour, and by the mouth iced milk, the rubber drain-tube being pinched to prevent the fluid from running off.

11th.—Rather troubled by cough during night, but feels otherwise quite well; swallowing produces cough still. Ordered one-third of a grain of morphia.—9 P.M.: Very much better, and quite cheerful and fresh, having slept during the day. Tube gives very little annoyance now, and he can drink his food slowly without producing cough. Writes that he feels no trouble or pain, but is thirsty. Drainage from mouth complete, and pads on nose and mouth work well. No fetor perceived; one-third of a grain of morphia.

12th.—10 A.M.: Very fresh and cheerful, having had a good night's rest. Breathes quietly and easily; respiration 22 to 25; no cough. No fetor, though stump of tongue and floor of mouth suppurate freely; drainage thorough.

14th.—As patient complained of cannula hurting him it was removed, and as the wound remained well open it was not replaced, though kept ready. Breathing was now easy through the wound. Other treatment as before.

16th.—Allowed to breathe a little by the nose as the tracheal wound is becoming smaller, and the mouth has now little odour; the latter still well covered.

17th.—Silver drain-tube removed from floor of mouth, as latter is almost quite clean. Drew lips of tracheal wound together with strips of plaster. To breathe entirely by nose. Sat up yesterday, and also to-day.

18th.—Looks extremely well. Tracheal wound still pervious to respiration, but closing. Tongue almost quite clean. Says he can speak much better than before operation; can certainly speak as well.

20th.—Up and about the ward. Eats mince. No pain.

From this time he did a good deal work in the ward until he left hospital on the 25th, with external wounds quite healed, tongue almost perfectly so. Saw him some time later, when he was very well indeed.

CASE 4.—E. L——, aged twenty-six. Growth noticed first seven months ago. Treated at first with caustics elsewhere and at University College Hospital as syphilitic for eight weeks.

Operation, April 23rd, 1879.—Tracheotomy under chloroform, as in last case. Small vessel cut in getting down on trachea. When this was stilled, a piece cut out of latter as in former cases. It was remarkable that not the slightest irritation was produced by this, the patient breathing just as tranquilly as the moment before. An ordinary bivalve cannula introduced, and chloroform continued through it. Sponge on string pushed into pharynx. Then the same operation as above, except that this time the tip of the little finger was used to separate the halves of the tongue at its base, by being passed in at the supra-hyoid wound, and along its track the écraseur with cord was passed before splitting the organ. When the cord had been passed round the diseased half of the tongue just above the epiglottis, and tightened, the organ was split forwards into two halves. While the strangulation of the right half was proceeding, I examined the left, and feeling a little suspicious about it, I removed its anterior third by a sweep of the knife, taking up and ligaturing a few small vessels. A silver drain-tube was now inserted in the floor of the mouth, with a stitch to steady it, and with rubber tubing attached to it as above described. The tracheotomy cannula was removed, and the wound left to itself to be used if fetor or hæmorrhage set in. Only the mouth was closed and padded in this case, the patient being allowed to breathe by the nose alone.

Two days later the weight of the rubber tubing seemed to drag the silver tube too deep into the floor of the mouth, where it was overlapped, and prevented from working efficiently. A strip of plaster was therefore wrapped round it tightly, just below the chin, by the house-surgeon, Mr. Pollard, and its ends crossed over the top of the head. This supported the tubing perfectly, after which it did its work thoroughly. As there was no hæmorrhage or fetor, owing to the perfect drainage, the tracheal wound was allowed to close slowly. Little need be noticed further about this case, which was treated in all respects like the last two, except that the patient made a rapid and uninterrupted recovery. The silver drain-tube was removed from the floor of the mouth on the thirteenth day, the stump of the tongue being quite clean and almost healed, and no trace of fetor having appeared. The patient sat up on and after the tenth day, and left hospital quite well on the nineteenth day after operation.

I now offer these few cases and any conclusions suggested by them for as much as they are worth, confident that, however I, or others who may possibly differ from me, may theorise on the matter, the whole truth will eventually rise surely to the surface and prevail, which is the best we can desire; it will do so, however, the more rapidly and surely if facts are carefully observed, fully recorded, and thoroughly discussed.

If I have learned anything from the study of such cases as the above and similar ones differently treated, it appears to be this: that the most scrupulous cleanliness is urgently called for, and is easily attained by the simple mode of drainage indicated; again, that clean unpolluted air is very essential to the safety of the patient, and may be provided for by tracheotomy or compulsory breathing by the nose; again, tracheotomy is one of the simplest and safest operations under the circumstances. It need only be added that the whole aim of this treatment is, really, merely to advance, if possible, one step further antiseptic treatment after severe operations—one of the highest aims of modern surgery.

Welbeck-street, W.

THE London Medical Schools will open on Oct. 1st. Introductory addresses will be delivered—at St. Thomas's by Dr. Robert Cory; at the Middlesex, by Dr. Sidney Coupland; at Charing-cross, by Mr. Francis Hird, the dean of the school; at St. Mary's, by Mr. St. George Mivart, F.R.S.; at the Westminster, by Dr. Dupré, F.R.S., the lecturer on chemistry and toxicology; at St. George's, by Mr. W. B. Dalby, aural surgeon to the hospital; at University College, by Professor George D. Thane; and at King's College, by Professor A. B. Duffin. At St. Bartholomew's and Guy's no addresses will be delivered.

CASE OF HYPERPYREXIAL TEMPERATURE.

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THE following case is in so many points similar to that recorded by Dr. Donkin in THE LANCET of March 15th, that I am induced to publish it.

M. M——, twenty years of age, a nurse in the Royal Infirmary, first came under medical treatment on the 24th of October last. She had been out nursing a case of erysipelas, and seemed impressed with the idea that she had contracted the disease. A slight blush above each ankle and a transitory and slight pyrexia were, however, all the evidences of disease she then presented. A few days after admission, when the pseudo-erysipelas had entirely subsided, retention of urine was complained of, and it was learned that about a year previously she had been similarly affected, but had not come under medical supervision. The urine was drawn off twice daily, and various remedies were employed, without restoring voluntary micturition. As the case was regarded as essentially hysterical in nature, she was allowed to go on duty, care being taken that no undue distension of the bladder occurred. Her pulse and temperature at this time were always found to be normal. Abdominal pain was occasionally present, and, perhaps wrongly, was attributed to distension of the bladder. Menstruation did not deviate materially from the normal. Other remedies having failed, faradisation was employed, one electrode being attached to the stilette of a gum-elastic catheter, which was passed into the bladder, a sponge electrode being applied externally. Acute cystitis followed this application on one occasion, and during the attack ample evidence was given that the power of voluntary micturition was entirely wanting. The cystitis passed off in a few days, and did not seem to have been an unmixed evil, some return of voluntary micturition following it. For this cystitis she had been again warded on December 8th. About this time Dr. Thorburn, obstetric physician to the infirmary, examined the patient, and found a prolapsed ovary enlarged and very tender. She stated that she had frequently pain on defecation, and abdominal pain became a frequent and distressing symptom. This was chiefly referred to the left iliac region, where there was also tenderness on pressure, but not limited entirely to that spot. Her temperature at this time became unsteady, as shown by the following observations: Dec. 8th, evening, 100·6°; 9th, evening, 98·6°; averaging 101° from the 11th till the 24th, when it reached 103·2° in the morning. This temperature was not maintained, and the thermometer registered 100·4° on the evening of the 25th. The temperature remained about 101° (reaching the normal, however, on the morning of the 28th) till the 30th, when the remarkable abnormity which it is the object of these lines to record began to manifest itself, temperatures of 105° and 98·6° (the former occurring during a rigor) being observed the same evening. The temperature after this continued irregular, as before, till the 3rd of January, when the thermometer in the axilla registered 106·6° at 10 P.M. during a rigor (pulse 132). On the 8th, 105·8° was noted under similar circumstances, but shortly after 99·4°. The following two days it remained normal, and on the 11th rose only to 102·6°, again to fall to normal. I regret that I am unable to furnish an unbroken curve of temperature observations, but on that account I trust the facts I can substantiate will lose none of their value. Rigors now began to occur with increasing frequency, each being accompanied by a rapid and great rise of temperature. They were irregular in occurrence, and did not conform to any definite type. Perspiration usually followed. It will be seen that the general form of the temperature curve would most closely resemble that of pyæmia, and the possible existence of an abscess in or about the ovary could not but suggest itself. The general condition of the patient was at variance with this hypothesis, the well-known features of intense illness being absent. I shall merely mention some single observations of temperature, giving the date and time. It may be taken for granted that

the high temperatures were those observed during or immediately after a rigor.

Jan. 24th,	11 A.M.,	107·2°	March 3rd,	8.45 A.M.,	111°
,,	12 ,,	102·2°	,,	10.30 ,,	108·2°
,,	9 P.M.,	101°	,,	11.30 ,,	99·2°
,, 25th,	evening,	98·4°	,, 4th,	5.15 ,,	107·4°
,, 29th,	,,	100·8°	,,	8.45 ,,	108°
,, 30th,	morning,	97·8°	,,	4 P.M.,	112·4°
,,	evening,	99·6°	,, 5th,	8.50 A.M.,	108·6°
Feb. 4th,	,,	105°	,,	2.30 P.M.,	106°
,, 5th,	,,	105·2°	,,	3.45 ,,	107·4°
,, 6th,	morning,	99·8°	,, 7th,	10 A.M.,	109°
,, 10th,	,,	105·4°	,,	8.30 P.M.,	102·6°
,, 16th,	,,	99·4°	,, 8th,	6 ,,	111·2°
,,	evening,	105·6°	,, 11th,	4.30 ,,	111·2°
,, 24th,	morning,	98·°	,, 12th,	10 A.M.,	108°
,,	5.35 P.M.,	108·6°	,, 17th,	evening,	100·4°
,,	10 P.M. (?)	98·4°	,, 18th,	3.30 P.M.,	116·4°
,, 26th	6 P.M.	112°	,, 19th,	4 A.M.,	116°+
,, 28th	4.30 P.M.,	113°	,,	8 P.M.,	98·6°
March 1st,	morning,	98·2°	,, 21st	9.30 A.M.,	111°+
,,	evening,	100°	,, 23rd	9.30 A.M.,	106°

During the last few weeks of treatment mental disturbance has supervened. At first this accompanied the hyperpyrexia only, but latterly it has been nearly constant. She has no fixed delusion, and what delusions she has manifested have been clearly founded on recent events which occurred around her. They tended towards the melancholic type of insanity. At times she has been exceedingly violent, and always more or less suspicious. There is no family history of insanity.

I believe that the hyperpyrexial attacks were of very short duration, and where, by the above figures, a prolonged high temperature is indicated, it is only apparently so, the observations having been made during the rigors. All were made in the axilla, and different thermometers were used, several of which had their registering columns driven into the bulb at the top (indicated above by the symbol +). I should mention that the retention of urine noted at the commencement has continued, with occasional intermissions of varying duration.

Even if the future reveal a fallacy in the temperature observation of such cases, which seems hardly possible, the record of them will lose none of its present interest at a time when there is perhaps too strong a tendency to disbelieve whatever militates against common experience. One most curious fact remains—that these cases do not seem to have attracted attention till lately, while we cannot doubt that they did occur when clinical thermometry was in its pristine vigilance.

No one is more conscious of the imperfections of this report than I am, and I have only one object in publishing it—viz., to support the evidence already brought forward by Mr. Teale, Dr. Donkin, &c., to show that the temperature of the human body may rise to an elevation hitherto considered incompatible with life, and that even without any sign of impending danger. Moreover, that such hyperpyrexial attacks are the result of an influence exerted by the nervous system.

P.S.—These lines were written towards the end of March, and it remains for me in a few sentences to narrate the subsequent history of the case. The attacks of hyperpyrexia ceased (though transient pyrexia occurred from time to time) on the advent of a new series of phenomena, including general convulsions of extreme violence, accompanied by opisthotonos, loss of consciousness, lividity, &c., and followed by persistent trismus, simulating in a remarkable way the traumatic form of that affection. These severe symptoms gradually diminished in intensity and frequency, while general amelioration in the patient's condition set in, so that on the 12th of April she was able to be removed to the Cheadle Convalescent Hospital. There her convalescence continued with but slight interruptions, and she is now on full duty as a nurse in the institution.

THE deaths of 1349 persons were registered in London last week, representing a rate of mortality of 19·4 per 1000 per annum. Four deaths were due to small-pox, 58 to measles, 45 to scarlet fever, 5 to diphtheria, 37 to whooping-cough, 20 to different forms of fever, 127 to diarrhœa, 181 to diseases of the respiratory organs, and 72 to violence.

NEW FORM OF PILOT FOR FACILITATING THE INTRODUCTION OF THE FLEXIBLE TRACHEOTOMY TUBE.

BY W. J. WALSHAM, F.R.C.S.,
DEMONSTRATOR OF ANATOMY TO ST. BARTHOLOMEW'S HOSPITAL; SURGEON TO THE METROPOLITAN FREE HOSPITAL, ETC.

THE introduction of Mr. Baker's flexible rubber tracheotomy tube is often attended with considerable difficulty, especially when the trachea is at some depth from the surface, and the flexible tube is resorted to a few days after the operation, while the wound in the trachea retains its slit-like form. The end of the tube being round, it is, of course, necessary to compress it laterally, so that it may insinuate itself wedge-wise into the slit in the trachea. This can hardly be accomplished by the fingers when the trachea is far from the surface, as the wound in the soft parts is not sufficiently large to admit of the fingers being passed down with the tube to the opening in the trachea; and compression by forceps is open to the objection that the blades with the tube between them are difficult to insert in the trachea, and are difficult to withdraw without bringing the tube with them. The pilots which have been made to aid the introduction of the tube are rounded to fit the tube, and therefore do not correspond to the shape of the aperture in the trachea, the edges of which are hence liable to be pressed in before it. The present instrument is designed to obviate these difficulties. Its form and action will be readily understood by the accompanying woodcuts. The blades are curved

The Pilot in the tracheotomy tube showing the latter stretched ready for introduction.

The end of the tube when stretched.

to correspond with the curve of the tracheotomy tube; they are smooth, flattened laterally, and slightly probe-pointed, readily slipping, when closed, in and out of the tube. When about to be used, the blades are passed into the tube till the points just emerge through the lower end. The blades are then opened by approximating the handles, and the end of the tube is thus vertically stretched, so that it corresponds with the shape of the tracheal opening, and can then be easily inserted wedge-wise into the trachea. On closing the blades the instrument can be withdrawn without any difficulty, leaving the tube *in situ*. A spring is provided for fixing the blades at the distance that may be required. The instrument has been made for me by Messrs. Arnold and Sons, West Smithfield, London.

Weymouth-street, W.

HEPATIC ABSCESS SUCCESSFULLY TREATED BY THE ASPIRATOR.

BY JAMES JOHNSTON, M.D.

ON Aug. 3rd, 1876, at noon, I was requested to go on board a steamer to visit Mr. F——, a surgeon, who had just arrived in Shanghai after a voyage of three days.

I found him lying on his right side. His respiration was short and catching; pulse 84, full. He had a short hacking cough, and any attempt to speak or move increased it very much, and caused intense pain in his right side below the nipple. On percussion in the right mammary line there was dulness from the level of the nipple for two and a half inches downwards; below this level the front part of the right hypo-

chondriac and the epigastric regions were resonant. The axillary line of dulness was normal. There was marked dulness from the lower angle of right scapula downwards. The vesicular murmur at base of right lung was weak, and faint crepitation was heard.

As it was not deemed advisable to move the patient during the heat of the day (the thermometer being 90° F. in the shade), he was left on board until 6 P.M., when he was placed in a cot and carried on shore. At 8 P.M. he complained of severe pain in the right side, and looked in great distress. Morphia (half a grain) was injected subcutaneously, and soon afterwards he fell asleep, and slept till 1 A.M. At 3 A.M. the pain returned with great severity, and the morphia injection was repeated with the effect of producing quiet sleep. When he awoke he gave me the following previous history. On the night of July 13th, 1876, the heat being very oppressive, he went from his bedroom and lay down on a chair in the verandah, and partly threw off his very light sleeping dress, and fell asleep. A few hours afterwards he woke up feeling chilly, and retired to his room. On the following day he felt pains in his right side and abdomen, which continued more or less for two or three days, and prevented him from visiting his patients. A few days' rest, attention to diet, and a little saline mixture, seemed to relieve him, but for some time afterwards the pains in the right side and abdomen recurred occasionally, and his bowels became irregular. On July 27th he was suddenly seized with violent pain in the right side, just under the ribs. He took a cold bath in the evening, which relieved him. On the following day he had a return of the pain, which was again relieved by the bath. On the 28th, 29th, and 30th the pain still continued. On the 31st it extended from the right nipple to below the ribs, and behind from the lower angle of the scapula downwards. During the voyage on August 1st, 2nd, and 3rd, the pain was agonising. He was unable to lie in any position with comfort; he suffered incessantly from cough, his breathing distressed him greatly, and he was unable to obtain sleep.

On Aug. 4th, Dr. Edward Henderson, at my request, kindly saw the patient in consultation with me, and on examination we found that in the right mammary line dulness extended from the level of the right nipple two inches and a half downwards. The axillary line of dulness was four inches and a half; the right dorsal from lower angle of scapula downwards. Fine crepitation was heard over base of right lung below scapula. Pulse 92; temperature, 6 P.M., 104·2°.

5th.—10 A.M.: Pulse 84; temperature 102°. Suffers from cough. Sputa very scanty, viscid, with slight rusty tinge. During the day he was restless, took very little nourishment, and seemed to suffer from constipation. The morphia injections were continued every eight or ten hours.—9 P.M.: Pulse 80; temperature 103·2°. He was ordered ten grains of extract of rhubarb in a pill.

6th.—10 A.M.: Slept for five hours last night. Able to get up. Took a warm sponge bath. Bowels relieved. Pulse 84; temperature 103°.—6 P.M.: Pulse 80; temperature 104·4°. In great pain. Repeated morphia injection.

7th.—8 P.M.: Pulse 90; temperature 104°. During the day, cough troublesome, and pain below margin of lower ribs.

8th.—Breathing much easier. Area of dulness the same. Pulse 76; temperature 101°.

9th.—7.30 A.M.: Pulse 56; temperature 97·8°. General appearance much improved. Pulse stronger. Much less pain. Can bear some pressure below margin of lower ribs.—7 P.M.: Pulse 74; temperature 100°.

10th.—9 A.M.: Rested well last night.—8 P.M.: Pain below margin of ribs returned. Pulse 90; temperature 101·6°. Morphia injection.

11th.—Passed a good night. Pulse 76; temperature 98·6°. Dr. Henderson having administered chloroform, I introduced a fine aspirator needle an inch and a half below the right nipple to a depth of three inches. As there was no indication of pus, the exploring needle was withdrawn and again introduced between the ribs three inches below the nipple with a similar result. It was then determined to explore once more, and the needle was introduced half an inch below and two inches to the left of the right nipple to a depth of four inches and a half. A few drops of pus flowed into the glass part of the tube. The small needle was then withdrawn, a large-sized one introduced, and twelve ounces of pus drawn off.—6 P.M.: Pulse 72. Suffering from chloroform nausea. Very little pain, and no indication of shock.

12th.—4 A.M.: Pulse weak and cough troublesome.—7 A.M.: Perspiring profusely; voice weak; still has a good deal of nausea.—10 A.M.: Pulse 64; temperature 98·6°; face very pale; extremities cold; clammy perspiration over the body. To take two drachms of brandy every hour, and to have hot application to the limbs and epigastrium.—8 P.M.: Has rallied and taken nourishment freely. Pulse 72; temperature 99·6°.

13th.—Suffered a good deal from cough and dyspnœa during the night; relieved by morphia injection.—7 P.M.: Pulse 66; temperature 100·4°.

14th.—9 A.M.: Slept well. Pulse 60; temperature 99°.—7 P.M.: Pulse 76; temperature 101°. Has taken nourishment very freely.

15th.—9 A.M.: Pulse 60; temperature 99°.—4 P.M.: Chloroform having been administered, a large aspirator needle was introduced in the same spot at which the pus was taken out in the previous operation, when, greatly to our surprise, a copious stream of dark-coloured blood flowed into the aspirator bottle. The needle was immediately withdrawn.—7 P.M.: Pulse 80; temperature 101·6°.

16th.—4 A.M.: Suffering from severe pain in the right lumbar region, which was relieved by morphia injection.—9 P.M.: Pulse 76; temperature 101·6°. Suffered from pain in the lumbar muscles, cough, and slight dyspnœa during the afternoon.

17th.—9 A.M.: Pulse 72; temperature 100°. Complains of pain in the right shoulder.—7 P.M.: Pulse 76; temperature 101°.

21st.—9 A.M.: Pulse 70; temperature 100°.—7 P.M.: Pulse 86; temperature 102·4°.

22nd.—9 A.M.: Pulse 72; temperature 99·4°. Patient looks pale and worn. He still suffers from cough, and when the morphia is discontinued the pain in right side returns. There is still dulness from the lower angle of the right scapula downwards, and crepitation over the base of right lung. The axillary line of dulness extends one inch above normal level. The condition of the patient in the evening indicating the probable increase in size of the abscess, it was determined to explore again, and, chloroform having been administered, a fine aspirator needle was introduced between the seventh and eighth ribs in a line from the centre of right axilla. A few drops of pus were seen. The small needle was then withdrawn, a larger one introduced, and twenty ounces of pus drawn off. A subcutaneous injection of morphia was then given.—At 9 P.M. he felt perfectly free from pain. Pulse 74.

23rd.—9 A.M.: Pulse 84, weak; temperature 99°. In the evening he had improved. Cough less.

24th.—Stronger. Temperature 98·4°. Dulness below right scapula less, and crepitation very slight. Cough troublesome.

27th.—Not so well. Cough and dyspnœa troublesome. Complains of pain above right nipple. On examination there is marked dulness on percussion over an area the size of the palm of the hand immediately above right nipple, and a friction murmur audible over that space. Pulse 84; temperature 101°. Has suffered from cough during the day almost incessantly.—5 P.M.: Chloroform having been administered, a large aspirator needle was introduced between the seventh and eighth ribs below right axilla, and ten ounces of pus, mixed with dark-looking serum and flakes of lymph, drawn off. He felt greatly relieved.

28th.—9 A.M.: Slept well. Says he feels stronger. Cough much less.—7 P.M.: Pulse 84; temperature 100°.

29th.—There is still dulness on percussion two inches above right nipple, and crepitation with inspiration and expiration; below scapula dulness very slight.

30th.—9 A.M.: Pulse 76; temperature 99·4°. Dulness above right nipple less. Marked dulness in right infra-axillary region, and moist crepitation. Patient perspiring profusely.—8 P.M.: Pulse 86, weak; temperature 101·4°. Cough troublesome.

31st.—Dulness above nipple slight. Cough not so troublesome.—7 P.M.: Pulse 86; temperature 101·4°. Not so well, probably owing to severe pain in getting rid of large scybala in rectum.

Sept. 1st.—9 A.M.: Passsd a restless night. Pulse 86; temperature 101°. Perspiring profusely; tongue red at tip and edges; no appetite. Ordered muriate of iron and disulphate of quinine every four hours.—7 P.M.: Pulse 72, weak; temperature 102·6°.

2nd.—9 A.M.: Pulse 84; temperature 99°. Profuse perspiration during the night; pain in side increased; cough

very troublesome all day.—5 P.M. : Aspirated, under chloroform, between seventh and eighth ribs, and drew off six ounces of thick creamy-looking pus, with large flakes of lymph in it.—8 P.M. : Pulse 76 ; temperature 99°. Expresses himself as much easier.

3rd.—Slept well last night. Pulse 64 ; temperature 99·2°. No cough. Has felt very well all day. Taking nourishment freely.

4th.—9 A.M. : Pulse 76 ; temperature 99°. Feels very drowsy and languid.—11 P.M. : Called hurriedly to see him, and found him in a state of collapse ; pulse thready and almost imperceptible ; limbs cold ; body covered with cold clammy perspiration. Applied hot bottles to extremities ; gave brandy, ammonia and ether.

5th.—11 A.M. : Circulation a little restored. Pulse still very weak.—7 P.M. : Pulse stronger ; temperature 99·4°.

6th.—7 P.M. : Not so well ; pulse weaker ; very depressed.

7th.—9 A.M. : Pulse stronger, 76 ; temperature 99·4°.—4.30 P.M. : Gave chloroform ; aspirated between seventh and eighth ribs, and drew off four ounces of pus.

8th.—9 A.M. : Says he feels wonderfully well. Pulse 72 ; temperature 98·6°.

9th.—9 A.M. : Examined chest ; respiration nearly normal ; dulness below right scapula just perceptible.

10th.—Patient is now able to sit up and walk about the room a little. Takes a liberal diet.

12th.—Pulse and temperature normal ; no pain in any part of the right chest ; cough disappeared ; secretions normal ; sleeps and eats well. His only complaint is muscular aching after walking a little.

17th.—Has slight pain in right side. Pulse 78 ; temperature normal.

18th.—Gave chloroform, and introduced a fine aspirator needle at the site of the former punctures between the seventh and eighth ribs. No indication of pus or of a cavity.

20th.—Has gained flesh. No pain or cough.

From this date his convalescence progressed rapidly, and he left Shanghai for England in December, 1876. When last heard of, in May, 1878, he was in good health.

Remarks.—There are several points of interest in this case. The insidious nature of the early stage of hepatic suppuration is well shown. From the 13th of July, when he experienced the chill, to the 27th of the same month, the symptoms merely indicated congestion of liver and intestinal catarrh. Suddenly, on the 27th, the pain in the right side increased in severity, and all the symptoms of hepatic suppuration began. On August 4th, when he was first examined by myself and Dr. Henderson, there was no bulging in any part of the right chest, below the ribs or in the epigastrium. The right nipple line of dulness was actually less than usual, being only two inches and a half from the nipple downwards ; the remainder of the right hypochondriac in front, and the epigastric region, were unusually resonant. The axillary line of dulness was nearly normal. Posteriorly the dulness extended to the lower angle of the scapula, and crepitation was heard over the base of the right lung. The two latter symptoms, taken with the acute pain in the right hypochondrium, the hacking cough, and the short, hurried respiration and high temperature, all pointed to the probable existence of hepatic suppuration. On August 8th there was a very marked amelioration in all the symptoms ; the breathing was much easier, and the pulse was at 9 A.M. 76, and temperature 101° ; at 5 P.M. pulse 70, and temperature 100·6°. On the 9th his general condition was improved ; at 7 A.M. the pulse was 56, and temperature 97·8° ; at 7 P.M. the pulse was 74, and temperature 100°. On the 10th and 11th the improvement continued, and at the time of the first aspiration the pulse was 76, and the temperature 98·6°.

Notwithstanding the amelioration in all the symptoms was so very marked, it was determined to explore for pus. The first two punctures made at the first examination failed to reach the abscess, but a third fortunately penetrated into the cavity. There were seven aspirations performed at different times, and the total quantity of pus withdrawn was fifty-two ounces. The first aspiration was performed August 11th, the second August 15th (but on this occasion the cavity was not entered), the third August 22nd, the fourth August 27th, the fifth Sept. 2nd, the sixth Sept. 7th, and the seventh and final one, which proved the cavity was closed, on Sept. 17th. Chloroform was administered at each operation. There was slight shock after the first operation, but none at subsequent ones. The needles were dipped in carbolic acid and oil (1 to 20) before use, and when withdrawn the seat of puncture was covered with lint soaked in carbolic acid and oil. The patient expressed himself as greatly relieved after each aspiration, and the improvement in his general condition was very wonderful. After a few days, when the more acute symptoms returned, he frequently begged me to use the aspirator again. Great benefit was obtained from the use of subcutaneous injections of morphia, which were given two or three times in the twenty-four hours during the most acute stage of illness.

I would earnestly impress the importance of aspiration in all cases of suspected hepatic abscess. The operation itself is simple, and free from danger. It has been my lot to witness many fatal cases of hepatic abscess, some of which I cannot help feeling might have been saved by a timely use of the aspirator. Another important point is this. Whenever you suspect hepatic abscess operate early, at once if you would save your patient. Do not wait for external indications, or more marked symptoms. I have of late seen several cases operated on by aspiration when the patient was much reduced from hectic and diarrhœa, and not one recovered.

In conclusion I have to express my obligations to Dr. Edw. Henderson for his valuable assistance. He visited the patient daily in consultation, and assisted at each operation.

Shanghai.

A WEEK'S WORK AT A FRONTIER STATION IN THE NORTH-WEST OF INDIA.

BY THOMAS ROBINSON, M.B. DUB.,
SURGEON, FOURTH PUNJAB INFANTRY.

SHOULD any of the younger readers of THE LANCET be disposed to pursue their profession in Her Majesty's Indian Medical Department, the following plain account of a week's work may be interesting to them, and perhaps may suffice to prevent them from taking up any particular branch to the exclusion of what, in the true sense of the words, is general practice. The civil surgeon of the station having been absent on duty for part of the time I write of, and ill for the remainder, it so happened that I had all the work to do, and this, with the thermometer at 104° F. in the house, and wellnigh 150° F. in the sun at noon, was not altogether a joke. However, the work was as follows. Only a general sketch of the cases is given.

CASE 1.—A woman in labour, her second confinement. In her first she had puerperal mania. She had now that ominous symptom, intense occipital headache. Could not take medicines, but had enemata of rice-water and castor oil, and afterwards of warm water and soap, whereby free action of the bowels was induced, and the headache and symptoms of excitement disappeared. She was delivered safely of a boy.

CASE 2.—A boy aged four years. Diagnosis was partial inflammation of the membranes at the base of the brain, supposed to have been caused by exposure to the sun. His temperature was taken frequently for six days : it varied from 100·6° F. (he was so fractious during this observation that it was not trustworthy) to 104·2° F. ; his pulse varied from 124 to 144, and his respiration from 32 to 62. It required very active purgatives to move him at first ; afterwards the bowels were regulated by enemata. Got typhoid symptoms, which were combated by beef-tea and stimulants (alcoholic). Afterwards he improved much under large doses of bromide of potassium ; at one time he was taking five grains every hour. He had no vomiting after the first day. It was very difficult to make him take food. He made a very good recovery.

CASE 3.—A woman with suppressed menses and her first attack of fever, and, as a natural consequence of the latter, a very bad temper. Taste vitiated, loathing all food ; complaining about all things. Ordered, among other things, a hot hip bath, which the patient agreed to take, but afterwards refused, saying that it would not and could not do her any good. Was finally treated with toasted bacon and champagne (her own prescription), and made a fine recovery.

CASE 4.—Was called out at noon to see a boy aged about two years and a half. He had been playing with a broken glass-bottle, and naturally in a short time he cut himself severely on the thumb. He was a stout little fellow, and allowed the thumb to be put up in a long narrow strip of thin cotton without opposition. He did not mind it a bit.

The parents differed in opinion as to what the consequence would be, the mother fearing death from hæmorrhage, the father having equally gloomy anticipations, but he thought the fatal result would be from lock-jaw. The child was all right in a week.

CASE 5.—Acute inflammation of the liver; much pain under the ribs and on right side of abdomen generally; bowels costive; urine of a bad colour and quality; pain in the back; acute darting pain at lower angle of scapula, and running up to the point of the shoulder. Mustard poultices to side, frequently repeated; turpentine stupes to back. Starvation and nitro-hydrochloric acid and taraxacum mixture. Patient improved under the treatment, but he was out of my hands before the recovery was complete.

CASE 6.—Severe attack of intermittent fever, with irritability of the stomach; patient much disturbed in mind because I would not allow him to undertake a journey of one hundred and fifty miles, for the purpose of submitting himself to an examination for admission to the Indian Staff Corps. The journey would have burnt out the small amount of strength he had. Treated with small doses of quinine in pills, with extract of taraxacum.

CASE 7.—Threatened erysipelas. Patient had been riding a strange horse, which threw up its head and struck him in nose and mouth; there was much swelling of the lips, nose, and cheeks, and the eyes were almost closed up. Hot water fomentations gave temporary relief. The application of a few leeches to the inside of the upper lip and the gum soon put everything to rights. There were violent purging and copious vomiting during the progress of the case.

CASE 8.—A lady was thrown from her horse, had her face scraped, and one finger was rendered stiff for some time. She recovered so far as to be able to attend a Spelling Bee without injurious consequences.

All these cases were among the European residents in the station. The following are from the hospitals:—

CASE 9.—Ulceration of both corneæ.

CASE 10.—Pneumonia with consolidation of right lung. Improved rapidly under pills of small doses of calomel, tartar emetic, and opium.

CASE 11.—Obstinate sciatica. From the heterodox nature of the symptoms it was strongly suspected that the patient was malingering, but it could not be proved. The disease was attacked both constitutionally and locally. Corrigan's cautery had a magical effect. As soon as the wounds caused by it had healed our patient preferred to return to duty, professing his entire freedom from pain.

CASES 12 and 13.—Fractures of sternum opposite third ribs, caused by a fall from the same horse.

CASE 14.—Dysentery. This disease is common enough; it is only mentioned here to show the varied nature of the surgeon's work in India.

CASE 15.—Enlarged spleen, with dropsy. A bad case, not apparently improving in response to the increased activity of the bowels, kidneys, and skin.

CASE 16.—Simple erysipelas, affecting the left side of the face and head. Considerable swelling and puffiness. Treated with flour thickly dredged over the parts and cooling drinks. Doing very well. Three small collections of pus opened of their own accord into the flour.

CASE 17.—A very aggravated case of sloughing chancre, which was in my hands for a few days only, during the absence of my *confrère*, who had to go away for change of air. He (my *confrère*) was Case 7.

These cases show with how many branches of the healing art we have to do. Here you have surgery, medicine, midwifery, and ophthalmology.

Edwardesabad, N.W. Frontier, India.

THE TREATMENT OF PNEUMONIA.

By EDWARD W. MOORE, L.R.C.P., &c.

THE subject of pneumonia is of sufficient importance to warrant the belief that any communication will be acceptable which will tend, however slightly, to harmonise that discordancy of opinion which exists as to what is, or what is not, the best treatment of the disease, and animated by this feeling I forward the notes of a case of pneumonia on my visiting list during last month, in which more than one line of treatment was adopted.

On Sept. 12th I was consulted by the patient, who had found himself early that morning too ill to continue about. He complained of slight cough, shiverings, and a pain round his ribs, which he attributed to straining himself by lifting some heavy stones. On examination I found his temperature to be 103·5°; respiration 34; pulse 96; and the physical signs of pneumonia at the bases of both lungs; but on the right the dulness was more marked and the bronchial respiration more intense. As my experience is only of some eleven or twelve years' duration, I may assume that I incline to the modern school of treatment. Solution of acetate of ammonia was prescribed, turpentine stupes, to be followed by linseed-meal poultices, ordered, and a milk and broth diet.

Sept. 13th.—Worse. Temperature 104°; respiration 38; pulse 108. Had passed a restless night. Treatment continued, but as his tongue was more coated he had a calomel and rhubarb purge.

14th.—Temperature 103·8°; respiration 32; pulse 100. The pills had acted four times; his tongue was cleaner, and he had passed a better night.

The night of Sept. 14th–15th was a bitterly cold one. I had on hand a journey of upwards of fifty miles, and during the early hours of the morning snow fell. I anticipated an injurious influence on my patient, nor was I mistaken, for on my return I found him complaining of severe pain on the right side; he had passed a very restless night, and had been slightly delirious. Temperature 104°; respiration 43; pulse 132, small and incompressible. I examined carefully for pleuritic complication, but found none; the patient was, however, decidedly worse, and I reconsidered the points of the case. The patient was apparently a strong man, aged forty-three, the father of a large and healthy family, had enjoyed previously very good health, was of temperate and industrious habits, of a nervous temperament (somewhat uncommon, I fancy, in Dutchmen), and he had lived what may certainly be termed "a country life," for the inhabitants of South African villages can scarcely be called town residents; and as about a fortnight previously I had been conning over the pages of Billing's "Principles of Medicine," sometime given me by the talented author, the outcome of it was that I determined to abandon the line of treatment which, by some, might be termed a do-nothing line, and to adopt a decidedly "antiphlogistic" one. Calomel and opium was given, together with potassio-tartrate of antimony and solution of acetate of ammonia. The turpentine stupes were to be repeated every twelve hours, and the linseed-meal poultices to be continued during the intervals. At my evening visit he was perspiring profusely; tongue was moister. Temperature 101·8°; respiration 32; pulse 120.

16th.—Temperature 103·5°; respiration 34; pulse 120. Bowels had acted once. In the evening he was perspiring profusely again, temperature 103·8°; respiration 36; pulse 126. To continue the treatment, but the pills and mixture to be taken every three instead of every two hours.

17th.—I was summoned early in the morning, the patient having passed a most restless and delirious night. I found him suffering from great dyspnœa, and there was much duskiness of face from imperfect aeration; temperature 104°; respiration 48; pulse 120, very small and weak. Once more I decided on a change of treatment. I ordered a brandy-and-egg mixture every two hours, and alternately with this I gave a chloroform mixture, so that every hour he had either three minims of chloroform, or a tablespoonful of brandy (in the egg mixture). In the afternoon he had slightly improved, and again in the evening there was a further advance; the dyspnœa was not so great; temperature 104°; respiration 42; pulse 125, but fuller and stronger.

18th.—By this morning there was a decided improvement; although he had slept but little, he had been quieter; the rusty sputa, which had been present throughout, had given place to a copious purulent expectoration; temperature 100·4°; respiration 34; pulse 110. From that time he continued to improve, and has now recovered.

In the above case I experienced some of the difficulties which beset practice in this part of the globe. We are here at an elevation of about 4500 feet above sea-level, with a very dry atmosphere; at the time that my patient was ill the sun had considerable power by day, but at night the temperature would fall to 50°, and even to 40°, within doors, and out of doors there was a sharp frost every night. There was only one fireplace in the house of my patient—namely, in the kitchen; and the device of having pans of hot coals

and vessels of hot water brought into the room did very little towards making the atmosphere of it more favourable for the disease. I use the word "coals" from force of habit. There is no coal here; the fuel that is burnt being either wood or the "kraal fuel," or "mest," as it is generally called: this is a mixture of dung and dirt, trodden down by the cattle in the kraals; after a time it is dug out, and dried by exposure to sun and air.

Fortunately for himself, as I think I may say without assuming too much, the patient was a more than usually sensible Dutchman; and just previously I had successfully treated his wife (*pace* Dr. Richardson) in an attack of bronchitis; otherwise, seeing that for some days the patient did not apparently improve under my treatment, I should probably have received my *congé* in favour of one or more of the many herb-doctors or quacks who drive a flourishing trade out here.

No one can have had many years' experience in the practice of medicine without wishing that there was more of the "positive" in the treatment of disease. At present it seems to me an art more than a science; perhaps when it attains the precision of the latter, if it ever does, there may be those who will long for the days when all was not a precise uniformity, and when there was scope for individual discernment and knowledge; but at present I feel that the want, or rather my want, is for more light—more certainty.

Before dismissing this case, then, I would ask, Am I right or wrong in supposing that the treatment pursued in some degree influenced the result? My impression is that it did so materially; and I am, therefore, afraid that I must class myself with that popular but erring physician whom Dr. Richardson held up to ridicule; but who, at least, had the merit of having some confidence in himself and his calling, and of honestly believing he was of some service.

The "expectant treatment" did not satisfy me, nor would it have satisfied his wife and family had the patient died; and my belief is that a continuance of the "antiphlogistic" plan for many hours longer would have ended in the death of the patient. Was the improvement on Sept. 18th due to the stimulation? Or had the treatment nothing to do with it? Would the critical period have arrived, and the patient have got over it, whatever might have been done or left undone? I opine not. I consider that the stimulants alone enabled the patient to surmount a crisis, in which he would have succumbed without their aid.

In conclusion, I would say that my experience, although I grant it is short, so far leads me to think that all the benefit that can be derived from the administration of alcohol may be gained by the exhibition of eight ounces of whisky or brandy per diem. I know that ere now I have ordered more, but the impression left with me is that it has been without benefit. Chloroform I have frequently given as a *dernier ressort*, but I should not continue to do so unless I considered that its administration on the whole had been fortunate.

Am I wrong in giving the medicinal treatment the praise when a patient, who has been steadily going from bad to worse, suddenly improves on some change in the medicinal treatment, other things remaining unchanged? I may be so, but, after all, I shall have the comfortable feeling that something was due to me, and to the treatment adopted.

Middelburg, Cape Colony.

A CASE OF SPINAL MENINGITIS; RECOVERY.

BY EDWARD COLSON,
SURGEON BOMBAY ARMY.

AMEER K——, constable, Ahmednagar police, aged twenty years, was admitted to the Civil Hospital, Ahmednagar, on December 22nd, 1878. The man was not intelligent, and the only history that could be elicited from him was that six days before admission he felt a pain in his back, which spread from thence to his joints, that he became unable to stand, and that he grew daily worse.

On admission the patient was lying with his legs drawn up, arms extended, and an anxious expression of face. There were no signs of trismus. He could open his mouth widely, and put out his tongue. Passed his urine and fæces voluntarily. Tongue much furred, and pulse slow and weak. Had a cough with viscid expectoration, but the lungs were evidently not much affected, there being only slight bronchitic sounds audible. Every few minutes he was seized with a spasm, in which the abdominal and dorsal muscles became rigid, and slight opisthotonos was produced. In the intervals between the seizures the muscles were relaxed; the muscles of the thorax and extremities were not affected. During the convulsion the patient cried out with pain. He was evidently fearful of moving a muscle, even those of the extremities, as the slightest motion immediately produced the pain and muscular contraction. He said he had a constant pain in the back, which was continued into both legs. The pain was not that of abdominal constriction; there was no tenderness of the spine, nor was pain produced there by the application of a hot sponge. The head was unaffected and the mind clear. The patient had some discomfort in swallowing, but no difficulty.

Dec. 3rd.—Is in much pain, as the spasms are constantly recurring, there being but few minutes' interval between them. Remains in the same position without moving. The expectoration is less viscid, but cough still very troublesome.

4th.—No change except that the pulse is weak and small; the cough is very troublesome, but lung sounds very nearly normal.

5th.—Slept fairly last night. No change in frequency of the spasms. Pain in the loins no less, and extends more severely into both legs.

7th.—No change except for the worse; pulse small and weak; spasms very frequent. Can sleep but little, and is in great pain. The rectum and bladder still act regularly and voluntarily.

8th.—Spasms are less frequent. There is less pain in the loins and legs. The patient says he has no power over his legs; this is, however, not the case, as he can move them but is afraid to do so, every motion on his part producing a spasm.

From this date to that of his discharge the patient improved steadily but gradually. The cough disappeared. He still continued to lie on his back with his legs drawn up, any attempt to straighten them immediately producing a spasm. Spasms continued to recur less frequently day by day.

On the 16th I note that he can straighten his legs slowly without producing the spasm, but on attempting to turn on his side it recurs. Also on the 29th that "he can straighten both legs slowly; spasms have entirely ceased."

Jan. 1st.—Is lying on his side; can walk slowly and with difficulty about the ward.

18th.—Discharged convalescent on two months' leave.

Remarks.—I think that the above case thus briefly recorded must be considered as one of spinal meningitis, probably of a subacute nature and not affecting the whole cord. The intense pain in the loins, either causing or caused by the contractions of the dorsal and abdominal muscles, the constancy of the pain in the back extending down both legs, the dread of moving hand or limb lest the pain should recur, are very marked symptoms of spinal meningitis, as generally described. The patient complained at first of some discomfort in swallowing, but this soon ceased; otherwise the muscles of deglutition were not involved, and with the exception of a spasmodic cough the lungs and the thoracic muscles were unaffected. The disease of the cord appears to have been confined to the lumbar region, and the absence of any paralytic symptoms would denote that the disease involved the membranes of the cord alone.

The treatment was entirely restricted to the exhibition of chloral hydrate in moderate doses, combined with morphia. This always gave him some rest, and probably aided his recovery. Local remedies were plainly inapplicable; but the fortunate result is doubtless chiefly due to the disease only partially affecting the spinal cord. The prognosis however of the case, when first seen, was sufficiently serious, and the patient may, I think, be considered to have been very lucky in escaping with his life. As idiopathic spinal meningitis is by no means common, and recovery very uncommon, I venture to lay this case before the profession.

Ahmednagar.

SEA-SICKNESS.

BY HENRY NAYLOR, L.R.C.P., L.R.C.S. Edin.

HAVING read the papers of Messrs. Clapham and Rudd Leeson on the treatment of sea-sickness with nitrite of amyl and the benefit derived from it, I wish now to say what I think of the disease, or, more properly speaking, symptom. Some physicians believe it to be due to a disordered state of the liver, and recommend patients to go in for a course of saline aperients and other things for some little time before they start on a sea voyage; others think that it is caused by an overloaded stomach. But neither explanation is adequate, because the subjects often show no symptoms of a disordered liver, nor does the sickness cease when the stomach is emptied; in fact, in most cases it is very distressing when the stomach is quite empty. Others, again, suppose it to be due to a congested state of the brain and spinal cord.

The theory I propose may be called the cerebral anæmic theory. The rapid swinging of the vessel and the body with it irritates the eyes and vision, and this, by reflex action, produces a spasm of the cerebral capillaries; this explains the feeling of faintness and giddiness that comes on suddenly, just as the vessel gives a big swing. The sudden emptying of the cerebral vessels causes the stomach to sympathise, resulting in efforts of vomiting, whether the stomach be full or empty. These symptoms are most distressing when the subject is in a standing or sitting position, with the eyes open. If he lies down the change of position relieves the anæmia, the faintness and giddiness pass of, and the sickness ceases. But occasionally even the recumbent position does not give relief if the eyes are kept open. When they are shut the symptoms are not felt in the least. I have known this to be the case with several ladies who were never comfortable while at sea unless they were lying down with their eyes closed. They were able to eat meals and retain them if they lay down and closed their eyes immediately afterwards. In fact, I have been obliged to keep some constantly in bed to prevent their dying of starvation. A fact that helps to show the feasibility of the anæmic theory is that brandy and other stimulants give considerable relief for a time, which would not be the case if cerebral congestion had to do with sea-sickness. The explanation of how sea-sickness continues so persistently in some is that the sickness weakens the heart's action, and this keeps up the cerebral anæmia, and that in turn again produces the sickness; so that prolonged sea-sickness is due to a circuit of causes, the one producing the other—the visional irritation, cerebral anæmia, sickness, weak heart's action.

With reference to nitrite of amyl, Mr. Leeson says, if it is to do any good, it must do so at once. This is because the medicine, being an antispasmodic, relieves the spasm of the cerebral vessels, and thus the brain is refilled with blood. But if it fails, then the persistent sickness, by its effect on the contractions of the heart, prevents the brain from getting a sufficient supply of blood, and thus the brain becomes anæmic, not from a spasm of the capillaries, but from an insufficient power of the heart. It is at this stage that alcoholic stimulants, in small doses frequently repeated, give great relief.

Campbell Town, Tasmania.

ABORTION; SEVERE FLOODING; INJECTION OF HOT WATER; RECOVERY.

BY ARTHUR PERIGAL, M.D.

MRS. T——, aged twenty-eight, mother of six children, sent for me on Sept. 14th, 1878. On arrival I learned she had had a discharge during the two previous days, but, deeming it a return of her periods (which had been absent on two occasions), it did not distress her. However, that morning, while at the w.c., she suddenly felt a gush, and something pass from her. She was at once got to bed, where I found her lying on her back, pale, pulseless, and moaning; only spoke when shouted at. The bedding was soaked with blood, dripping through to the floor. On examination, the vagina was dilated, the os uteri firm, but slightly patulous; blood was pouring from her in a continuous stream; no uterine contractions. I insinuated my finger through the os uteri, at the same time endeavouring to grasp the uterus in the left hand. I now found the uterus was enlarged, mobile, and contained something resembling a placenta in touch. A fluid drachm of tincture of ergot in brandy was at once given. As the bleeding in nowise diminished, I decided upon injecting hot water; so I passed the tube of a "Higginson" well into the uterus, and injected very slowly six times with water that I could put my hand in without great discomfort (a thermometer not being forthcoming). It seemed to answer well, as the bleeding greatly diminished. I now got my finger inside the os, and sweeping it round as far up as I could reach, I detached the placenta from several points; the bleeding now greatly diminished. A medical friend, who now arrived, helped me to repeat the hot water injection; after having done so, the os became soft and dilatable, so that I was able to insert two fingers, and extract the mass already referred to, which was the placenta. I thought I felt something else in the womb, but on withdrawing my finger, the os contracted so tightly that I could not reintroduce it. Dr. Livingston, who kindly assisted me, also tried to pass his finger, but failed; and as the bleeding had all but ceased, we decided to leave her alone—at least for the present. The dose of ergot was repeated, and teaspoonfuls of brandy and milk were given every ten minutes; pulse 50, very feeble. To have one ounce of strong beef-tea every half hour. After four hours she had rallied a little; no bleeding of any moment, no bagging of womb, no pain, no sickness; pulse 70, stronger; says she feels comfortable. From this time she progressed slowly, but surely, towards recovery; only a slight discharge during the three following days. To take ergot and aromatic sulphuric acid in chinchona. In ten days she was on the sofa, and was out in three weeks.

Remarks.—Patient is a pale, flabby woman; generally bleeds pretty smartly at her periods and confinements. When I saw her my first idea was to stay the hæmorrhage, and learning that something was supposed to have been passed, I thought the bleeding might be caused by the retention of the placenta, partially or wholly detached, in the latter case acting as a preventive to the due contraction of the womb. So when I found the os patulous, and looking at the rate she was bleeding, I decided not to plug, but at once to dilate the os and empty the uterus; moreover, the finger in its passage through the os would act as a plug. When I found the bleeding continued in spite of the finger being in the canal, and the os did not give much, I determined to use the hot water injection. This acted well, restraining the bleeding, and helping the os to dilate, so that I had not much difficulty in passing my finger and bringing away the placenta after the repetition of the injection; then the bleeding ceased. The ergot may have had something to do with this happy result; but I incline to give the hot water all the credit, as contraction ensued immediately after its application. Had there been iron in the injection I should have dreaded its entrance into the uterine sinuses, for during the injections the placenta was in utero; however, this may be no reason against its use in such a case. The course of the case showed that nothing was left in utero, as no clots or débris passed. Upon questioning her afterwards I learned that she had labour pains during the day previous; that she lost a quantity of blood during the night, but got up and went about the house in the morning; when at the water-closet she felt a great rush and hardly remembered more. Had assistance been procured the day previous in all probability her life would not have been in such jeopardy.

New Barnet.

DIPHTHERIA seems to be just now the bugbear of sanitary authorities and their officers. One of our contemporaries reports an outbreak at Lancaster-road, Lower Norwood, caused, it is reported, by an open sewer, which pours itself into the main drain in the immediate neighbourhood. Two fatal cases have occurred out of a total of eight, all within a radius of twenty yards of the sewer. It would be well if the inhabitants consulted their medical officer of health, or applied for assistance to the Local Government Board.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

STRUMOUS CARIES OF THE LOWER TIBIAL EPIPHYSIS; ACUTE TUBERCULOSIS; MENINGITIS; TUBERCLE IN THE OCULAR CHOROID; REMARKS.

(Under the care of Dr. SIDNEY COUPLAND.)

MARIA B——, four years of age, a puny, strumous-looking, fair-complexioned child, was admitted on Jan. 29th, 1879, under the care of Mr. Hulke, having a discharging sinus on the inner side of the left leg, about an inch and a quarter above the malleolus. The mother had died at the age of twenty-one, five months after the child's birth. The father was living, healthy, twenty-six years old. She had measles at two years of age, and whooping-cough eight months later, and she had ever since been subject to catarrhal attacks. Ten months before her admission she fell a distance of eight or ten feet from one landing of a staircase to the next below; was picked up insensible, and suffered with vomiting for the following two days. A month afterwards she began to have pain in the left foot and to limp in walking, and in a few weeks the foot became red and swollen; but no treatment was had recourse to until November, 1878, when a plaster-of-Paris splint was applied to the foot and leg. An abscess formed near the inner ankle, which was opened, and continued to discharge until her admission in January.

Notwithstanding the administration of cod-liver oil and the employment of local measures, including gouging of the lower end of the tibia on March 26th, and fixation of the leg and foot on a splint, the sinus did not heal, and the child became thinner and paler. In the first week in May she was attacked with broncho-pneumonia, but by the 19th she was declared convalescent.

On June 6th she became fretful and irritable, and having passed a restless night on the 8th, crying and screaming most of the time, she was seen by Dr. Coupland on the 9th, and the symptoms pointing to tubercular meningitis, she was transferred to a medical ward. The following is a brief summary of her condition at this time. The child was very irritable, fretful, occasionally screaming loudly; but at the same time her mental condition was dull, and she refused to answer questions. There appeared to be considerable itching of skin. The sides of the abdomen were seared with red lines (which appeared on the slightest scratch), indicating where she had just been scratching herself. The skin was very dry and harsh. The abdominal walls were retracted. There was double convergent strabismus, but no other paralysis. The pupils were equal, and contracted to light. On ophthalmoscopic examination, the optic disc of the right eye was well defined; the vessels were of normal size, the veins not showing any fulness or tortuosity. At a spot on the apparent inner side of the disc, in the vicinity of the "yellow spot," there was an ovoidal pearly-white patch with a marginal zone of black pigment, and around this a bright halo. The central portion of the patch, the diameter of which was fully equal to that of the disc itself, was brighter than the circumferential part. A retinal vein ran from right to left above (inverted image) the patch, close to its pigmented margin, but was not obscured by it. There was very little pigment in the choroid, and the whole fundus had a finely granular appearance. But it was not known whether this was abnormal, for precisely the same was observed on the left side. The disc and vessels of the left eye were natural.

Ice was applied to the head, and a mixture containing three grains of the bromide and one grain of the iodide of potassium was ordered.

On June 10th she passed a restless night. The constipation, which had been obstinate throughout, continued. The retinal veins appeared fuller. Temperature 101°; pulse 132. The fretfulness continued during the next three days, but the child became more drowsy; at times waking up and crying out loudly. The temperature varied from 102·4° to 99·8°; the pulse-rate from 120 to 140, at times the pulse being very irregular.

On the morning of the 12th she had a slight convulsion, in which she foamed at the mouth, but no rigidity or paralysis ensued. This was the only convulsive seizure she had during her illness. Some retraction of the head now began to be noticed, and also some difficulty in swallowing. The strabismus was very marked, and the restlessness, alternating with drowsiness, continued. On the 14th it was noted that the margins of the optic disc were still clearly defined, but the disc had a pinkish tinge; and the retinal veins were larger, being from one and a half to two and a half the size of the arteries. The patch in the right fundus was unaltered. No fresh spots had appeared.

On June 15th she ceased to cry out, and, during the greater part of the day, lay with her head retracted, the eyes half open, not taking notice of anyone. The respiration now became very rapid and irregular. At midday it was 62 per minute; at night 82, when the temperature was 102·6°, and pulse 160.

Next morning temperature 102°; pulse 160; respiration 60. She lay in the same semi-comatose condition. The outline of the discs was still well defined; but the veins on each side were now fully twice the size of the arteries. At 11 P.M. temperature 103·4°; pulse 150; respiration 70.

On the 17th (11.30 A.M.) temperature 101·6°; pulse 168; respiration 112. This remarkable rapidity in the respiration was maintained for some hours, then it fell to 80 and less. The child lay with her head very markedly retracted; the hands clenched, the thumbs turned into the palms, the arms rigid. Frequently during the day she had attacks of clonic spasm of the limbs, especially the arms and hands. The tongue was dry and brown. Breathing very rapid and irregular. Numerous moist râles were to be felt and heard over chest. There was some lividity of face. Much sweating. She was wholly unable to swallow.

She remained in this condition throughout that day and the next, dying at 9 P.M. on the 18th.

Necropsy.—Above the inner malleolus of the left leg there was a sinus leading into a carious cavity in the tibia, and a smaller aperture also behind the malleolus. On dissection the ankle-joint was found full of pus, and the articular surface of the tibia to be ulcerated over an area the size of a sixpenny piece, leading into a cavity in the extremity of the bone. The astragalus was denuded of its cartilage, roughened, and carious, so that it could readily be cut with a knife. A vertical section of the tibia showed the epiphysis to be entirely excavated, the cavity being large enough to hold half a chesnut, and lined by soft, carious, discoloured bone and pus, whilst the lower end of the medullary canal of the diaphysis was filled with soft vascular granulation-tissue for a depth of half an inch. The cavity was bounded below by the articular cartilage, except where this was destroyed by ulceration as above stated.—Head: Notable vascularity of pia mater, flattening of cerebral convolutions, much exudation at base of brain in interpeduncular space, and along Sylvian fissures, where the lobes were adherent, and where also abundant fine granulations studded the pia mater. Much clear fluid in lateral ventricles, softening of their walls, and of fornix, and a few punctiform hæmorrhages beneath ependyma in each posterior cornu. The posterior half of each eyeball was removed and carefully examined. There was no swelling of the optic nerve outside the sclerotic, and in each the disc was clearly marginated, and the retinal vessels very distinct. In the left eye, about one-tenth of an inch directly above the macula lutea, was seen the white patch observed during life. It was nearly circular in form, and had a zone of black pigment around it. It was a prominent nodule, and its diameter nearly equalled that of the optic disc. It was evidently springing from the choroid, but the retina was adherent to it. (It is doubtful if any retinal elements existed on its surface.) A retinal vessel coursed just below it from right to left. Under the microscope it was seen to be composed of closely aggregated small round cells, its central two-thirds being opaque and homogeneous. Intimately connected with choroidal vessels, it answered to all the characters of a caseating tubercle in this membrane. No other tubercles could be seen with the lens, either in this eye or the other, and microscopical sections of the membrane were not made.—Thorax: There were several pus-

containing, smooth-lined cavities of the size of peas in the upper lobe of the right lung, and a solitary larger one in the left upper lobe, whilst both lungs were much pervaded with firm granulations, some greyish and translucent, others opaque, all more or less aggregated in confluent masses. A softened semi-cretified bronchial gland behind the right bronchus had nearly ulcerated into this tube. There were no granulations in any other organ or serous membrane, but there was marked enlargement and some pigmentation of Peyer's glands in the lower part of ileum.

Remarks by Dr. COUPLAND.—Here, as in so many cases, there are at least two foci for the generalised tubercular infection,—the chronic pulmonary disease and caseating bronchial glands on the one hand, the disease of the bone on the other. The limitation of the grey granulation to the pia mater and the lungs is not infrequent; but it is rare to get *only* the pia mater involved. At least that is the experience at the Middlesex Hospital, where out of twenty-one cases of meningitis, examined in the years 1873 to 1877 inclusive, in only two were recent granulations limited to the pia mater. In seven of these cases the pia mater and lungs alone presented recent granulations, whilst the remainder showed infection of one or more of the serous membranes and of the abdominal viscera in addition to the regions above mentioned. Choroidal tubercle, generally, but not always, sought for, was found in but one of these cases. It may be added that in three of these cases there were no caseous foci to be found which could have initiated the infective process. Two of the cases were associated with marked rickets; four with strumous disease of bone or joints; four with chronic pulmonary disease; two with caseating lymphatic glands (present of course in many of the other cases); one with tubercular tumour in the brain; and one with genito-urinary tuberculosis. As regards the present case, the paucity of the symptoms is noteworthy, especially the absence of vomiting, and the very casual occurrence of convulsions. Finally, the absence of optic neuritis, or swelling of the disc, is of interest, especially in connexion with the facts on this head recently brought before the Royal Medical and Chirurgical Society by Dr. Garlick. Certainly, repeated observations showed progressive increase in the size of the retinal veins; but there was no distension of either optic sheath found after death. The tubercle in the choroid of the right eye was remarkable for its large size, its obviously old date (from the surrounding pigmentation and the advanced stage of degeneration in which it was found to be), and also for its solitary character. It resembled rather a tubercular tumour than a granulation; and it was this fact, added to its unusually white appearance, that made me regard it during life as a patch of choroidal atrophy rather than a tubercular growth. The post-mortem examination, however, revealed its true nature, which, perhaps, its regular outline should have suggested earlier.

RADCLIFFE INFIRMARY, OXFORD.

CASES OF TETANUS, IDIOPATHIC AND TRAUMATIC; TREATMENT WITH AND WITHOUT MEDICINE.

(Under the care of Dr. TUCKWELL and Mr. WINKFIELD.)

THE following notes should be read in conjunction with those relating to a series of cases of chorea treated on the expectant plan by Dr. Gray and Dr. Tuckwell, published in THE LANCET of Nov. 11th, 1876; and the notes of a severe case of chorea treated without medicine by Dr. Tuckwell, recorded in the "Mirror" of the 5th ultimo. In the first two of the subjoined cases the tetanus was seemingly brought on by exposure to cold and wet; a stiff neck, followed by spasmodic contractions of the stiffened muscles, ushering in the attack. The duration of symptoms prior to admission was exactly the same in both; and both were men of great physical strength. In the one, chloral was given freely, and steadily persevered with to the fatal end. In the other, chloral was given for the first day after admission; and then, as there was no relief to symptoms, it was resolved to try and nurse the case through the attack, without chloral or other medicine, which was done successfully. The third case, one of traumatic tetanus, was likewise nursed through to recovery, the only medicine given being the haustus menthæ sulphuricus.

CASE 1.—J. B——, night-policeman, aged twenty-five, was admitted into the infirmary, under Dr. Tuckwell's care, on May 21st, 1871. He was reported to have been first taken ill, a week before admission, with stiff neck, probably brought on by exposure in his night duties. This had gradually got worse, and had been followed by cramps, coming on every few minutes, in the muscles of the neck and jaw, with severe pain. He had never had any similar attack, nor suffered from fits, nor been recently hurt or injured in any way, but had enjoyed remarkable health.

He was a man of great size and strength. He lay on his back with expression of great suffering, the brows wrinkled, the head drawn backwards and a little twisted to the right. As soon as he began to speak he was seized with a tetanic spasm of the muscles of the back of the neck, and started up into the sitting posture moaning and crying out. The attack passed off in a few seconds, and he lay down again with the head in the same posture, still cramped. There was no risus, but he could only separate the jaws a short distance from each other, and during the spasm they were firmly clenched. Pulse 76, regular. Temperature 98°. Skin sweating. Tongue coated, bitten in the spasm. He swallowed with some difficulty, as any attempt to do so brought on spasm. No other muscles were as yet affected. No other scratch, or cut, or hurt of any kind could be detected.

Ordered to take calomel and jalap pill, to be followed by black draught, and, when the bowels had acted freely, ten grains of chloral every three hours; milk and beef-tea.

May 22nd.—Had had a good deal of sleep through the night, having taken four doses of chloral. The abdomen had now become rigid. To take fifteen grains of chloral every three hours.

23rd.—Had slept a good deal through the night, but the spasms had become more severe this morning, and the muscles of the thighs, as well as the abdomen, were in a state of rigid tetanic cramp. Pulse 96. Temperature 99°. Tongue a little dry. To take twenty grains of chloral every three hours through the day, and two doses of thirty grains each through the night.

24th.—Had slept heavily during the night, after the chloral. Had had two paroxysms this morning. During the visit he had a severe spasm, in which the back was arched violently backwards (emprosthotonos) so as to throw him up into a sitting posture, all the muscles of the body being quite rigid. The spasm then subsided, and there remained moderate tetanus of the neck and abdomen. Pulse 100; temperature 99·6°. He could swallow better. To take thirty grains of chloral every three hours.

25th.—Had had frequent spasms. On attempting to put out his tongue had another violent attack of emprosthotonos. Pupils natural. Pulse 110. Temperature not taken, as the attempt to do so induced spasm. Had passed no water since the previous evening, each attempt to do so bringing on spasm. Ordered a drachm of chloral every three hours.

26th.—Had passed a quiet night without a single spasm, sleeping heavily. Had passed water freely. During the visit he was attacked with violent emprosthotonos. Pulse 110, very feeble and thready. Tongue very dry. To continue chloral.

27th.—Had slept well through the night, and taken nourishment freely. He slept through the visit. To take thirty grains of chloral every three hours, and drachm doses through the night; brandy, one ounce, in addition to milk, beef-tea, and eggs.

28th.—Had slept well through the night, and the spasms this morning had been less severe. He could turn himself round in bed, and the pain was less severe than it had been throughout the illness. Muscles of neck, abdomen, and trunk still rigid. Pulse 104. Tongue dry. To continue the chloral as before.

29th.—Had had a restless night, and was attacked, while the pulse was being felt, with a very bad spasm of emprosthotonos. Pulse 120, very flickering. Tongue dry. To continue the chloral, and take six ounces of brandy.

30th.—Had slept moderately, and had had one, less severe, spasm this morning. The tetanic condition of the muscles had a little relaxed. Pulse 120, very feeble. To take eight ounces of wine in addition to the brandy; the dose of chloral to be reduced to twenty grains every four hours. The same evening he was in a very prostrate state. The chloral was therefore stopped, and the nourishment and stimulants were ordered to be continued frequently. During the night he had another slight spasm, and shortly after it was over the heart suddenly stopped. His mind was clear

to the last. The total duration of the attack was about seventeen days.

CASE 2.—S. C——, labourer, aged forty-eight, was admitted into the infirmary under Dr. Tuckwell's care on May 8th, 1875. He was reported to have been attacked seven days before admission, after prolonged exposure to wet and cold, with stiff neck, followed by spasm in the muscles of the neck and chin, which had gradually extended to the muscles of the belly, back, and limbs. He had enjoyed remarkable health, and had not received hurt or injury of any kind.

He was a well-made, strong, and muscular man. He lay on his back with well-marked risus, tetanic rigidity of all the muscles of the neck, extreme spasm of the abdominal muscles, and permanent opisthotonos. Every few minutes this was violently intensified by a paroxysm of general tetanic cramp. Pulse 100; evening temperature 100°. Ordered to have his bowels well opened with calomel and jalap pill, followed by black draught, and then to take twenty grains of chloral every three hours.

May 9th.—His bowels had acted freely, and he had taken five doses of chloral, but the cramps were not relieved. It was now resolved, bearing in mind the previous case, and in consideration of the good result that had followed a similar plan of treatment in severe chorea, to discontinue all medicine, and trust to nursing and nourishment. He was ordered to be kept perfectly quiet, and take, at regular intervals, milk, beef-tea, eggs beaten up in milk, and light puddings, but no medicine or stimulant.

10th.—He had taken nourishment well, the mouth being only partly closed by the tetanus. The tetanus was unchanged, the spasm of opisthotonos being very severe.

11th.—He had been quieter, and had slept at intervals through the night. He expressed himself as feeling better. There was the same permanent rigidity of the muscles, but the paroxysms of cramp were less severe. Pulse 108. Evening temperature, 100·4°. Tongue moist, but coated.

12th.—He had dozed through the night. The cramps had been less severe, not recurring more than every hour; the permanent rigidity remaining.

13th.—Had had a quiet night; the spasms still shorter in duration and at longer intervals. Pulse 100. Evening temperature, 99°.

14th.—Much the same. Pulse 108. Evening temperature 100·2°; skin profusely sweating.

15th.—Much the same. Pulse 106. Temperature 99·4°. Same profuse sweating.

16th.—The spasms had been more severe in the night, but he was quieter again this morning. The face was still drawn, but less than at first. The sterno-mastoids were now relaxed. The abdominal muscles were as hard as a board, and the spinal muscles persistently rigid, keeping up a constant slight opisthotonos. Pulse 108. Evening temperature 99·2°. Tongue moist, but foul.

17th.—He had passed a better night, and had had less spasm. Pulse 88. Temperature 98·8°.

19th.—The spasms had recurred at much longer intervals, and he was in less pain. The belly was still board-like. The permanent opisthotonos was gone, and he could move freely both arms and legs. He could open the mouth wider, and put out the tip of the tongue. Pulse 88; temperature 98·4°.

20th.—Had passed a restless night. During the visit he had a short but sharp spasm of opisthotonos, and contraction of the extensors of the legs, but as soon as the spasm was over these muscles relaxed. Pulse 96; temperature 98°. His expression was quiet and calm. He could protrude the tongue half-way. The abdominal muscles were still board-like.

24th.—Had had very slight spasms at long intervals. The abdominal muscles were still rigid. Pulse 80; temperature 98°. He had taken yesterday, for the first time, a little minced meat and mashed potato.

31st.—All spasms had ceased. Slight rigidity of the abdominal muscles remained. He had slept well at night, and was quite cheerful. He could pull himself up in bed and sit upright.

On June 7th, the thirty-eighth day of the attack, he could walk up and down the ward. All pain was gone. Slight rigidity of the abdominal muscles remained till June 18th, when he was discharged cured.

CASE 3.—E. M——, brewer's man, aged forty-seven, was admitted into the infirmary, under Mr. Winkfield's care, on May 23rd, 1878, suffering from an injury to the thumb and commencing tetanus. Ten days before admission his left thumb had been partially crushed between some casks. He had been treated with water-dressing, and had gone on favourably till three days before admission, when he had begun to feel pain about his jaw and difficulty in swallowing. He had continued at his work till the day before admission, the stiffness and pain in moving the jaw having gradually increased.

On admission there was a ragged slough on the injured thumb. The jaw was so far closed that he could only open his mouth about three-quarters of an inch, and there was stiffness about the muscles of his neck. His abdomen was soft. Tongue furred, breath rather fetid. Pulse 66; temperature in axilla, 98·4°. His bowels were reported to have been regularly and freely open. He was ordered, for diet, broth, milk, and a little minced meat; and for medicine, haustus menthæ sulphuricus, one ounce three times a day.

May 24th.—His bowels had acted naturally. The stiffness of his jaw had increased, and risus sardonicus was beginning. His other symptoms were much the same.

This condition lasted for some days, the jaw becoming closed, so that he could only open his mouth half an inch wide, with stiffness in the neck and the muscles of the back; but he managed to take his food well. The symptoms then gradually abated, and he was discharged on June 12th, his thumb being healed, and all tetanic symptoms gone. He is now well, and doing his work as usual.

WORCESTER INFIRMARY.

A CASE OF FRACTURE OF THE FEMUR FROM SPASMODIC MUSCULAR CONTRACTION.

(Under the care of Mr. THOMAS W. WALSH.)

JAMES Y——, aged forty, was admitted on Oct. 23rd, 1878. Seven years before he was kicked by a horse on the left thigh, but his leg was not broken, and he was able to work afterwards. Subsequently, at different times, abscesses, attended with much pain, formed in his thigh. These abscesses burst, and some months after small pieces of bone were passed through the sinuses, which never healed. For some time previous to admission the man had suffered much pain from spasm of the muscles of the thigh, but he was able to get about, and even followed the plough a fortnight before the accident. At that period, however, the leg became so weak, and the spasms so frequent and severe, that he was obliged to take to his bed; and on Oct. 20th, in one of those violent spasms, he heard his thigh snap.

On admission the leg was manifestly broken at the junction of the lower with the middle third. It was much shortened, and the foot was everted. There were several old cicatrices and two sinuses, one on either side of the thigh opposite to the fracture. The whole limb was brawny. On passing a probe, it struck dead bone, and the opinion arrived at by Mr. Walsh and his colleagues was that there was necrosis, with a deficient formation of new bone. The slightest manipulation gave extreme pain. The thigh was placed on a splint, with sand-bags on each side. Opiates and a liberal diet were ordered. Notwithstanding this, the spasmodic twitchings were frequent and most painful, and, as he did not improve, Mr. Walsh, with the approbation of his colleagues, decided to amputate, which was done on Nov. 5th by Carden's single skin flap.

Nothing very particularly noteworthy occurred in the later progress of the case, except the formation of one or two small subcutaneous abscesses, which somewhat delayed his recovery until Feb. 14th, when he was discharged with a sound and useful stump.

On examining the limb the fracture, which was deeply and irregularly serrated, was found at the locality before mentioned. There was no sequestrum, nor was any new bone formed. The medullary canal for about two inches in either fragment was much distended, and the bony structure consequently much attenuated. It would seem that the man had been suffering from medullary abscess. The specimen is preserved in the museum of the infirmary.

THE Witham Union is to be dissolved from Lady-day next, and the seventeen parishes of which it is comprised are to be added to the Maldon, Lexden and Winstree and Braintree Unions.

Reviews and Notices of Books.

La Trepanation guidée par les Localisations Cérébrales. By Dr. LE JUST CHAMPONNIÈRE. Paris: Delahaye. 1878.

De la Trepanation dans l'Epilepsie par Traumatismes du Crane. By Dr. M. G. ECHEVERRIA. Paris: P. Asselin. 1878.

WHATEVER may be thought concerning the precise amount of importance to be assigned to the doctrine of cerebral localisation, there is no doubt that this doctrine has given a stimulus to surgical as well as to medical inquiry. In surgery, indeed, we may look for some of the best fruits of its study, in the reintroduction of the operation of trephining for meningeal hæmorrhages due to injury, and for the opening of abscesses even deeply seated in the substance of the brain. M. Le Just Champonnière's book is an urgent appeal to surgeons to increased activity in this direction. It may be said to have been suggested by the successful issue attending a case under his care in the year 1874. A man picked up insensible in the street, with a superficial scalp wound over the left parietal eminence and some ecchymosis of the eyelids, was found to have incomplete paralysis of the right upper limb, and four days afterwards he was attacked with convulsions affecting the right shoulder and the left arm, the lower limbs also being the seat of irregular spasms. No improvement taking place, and after due deliberation, M. Champonnière explored the scalp wound, detected a fracture in the left parietal bone, trephined, and, to make a long story short, had the satisfaction of seeing his patient recover not only from the epilepsy but from the paralysis, some aphasia, which persisted for a longer period, eventually disappearing. The recital of this case is preceded by a chapter on the history of trephining, in which some interesting statements are made as to its performance in prehistoric times and among modern savages; and the ingenious speculations of Broca upon the probability that in remote times epileptics were specially practised upon with a view to liberate the evil spirit lodged within the cranium! In his second chapter the author gives a history of modern opinion on the subject of trephining. Then follow chapters upon cerebral localisation; the sites of the motor centres in the cerebral cortex, and the points corresponding to them on the surface of the skull; whilst a large number of cases, many culled from the records of the American War, are quoted in support of traumatic lesions of these centres producing localised paralysis and convulsions. The indications for trephining in injuries to the head form the subject of the ninth chapter, and the thesis of 150 pages concludes with a brief criticism of recent writings on the operation. The other work before us, although less exhaustive, is a very practical and valuable contribution to the question.

Minor Gynæcological Operations and Appliances. For the Use of Students. By J. HALLIDAY CROOM, M.B., M.R.C.P.E., Lecturer on Midwifery and the Diseases of Women at the School of Medicine, Physician to the Royal Maternity Hospital, late Tutor to the Midwifery Class, University, Edinburgh.

HE was a wise author who first thought of a book on minor operations. We are disposed to think that one of the great defects in medical teaching is neglecting to teach the student how to do minor operations, and thus to prepare him for the performance of major ones. The difference in the way in which two practitioners pass a catheter or introduce a pessary is often indicative of a huge difference in their efficiency as practitioners. Mr. Croom's is an admirable little book, for which we are sure the student in midwifery and the diseases of women will be very grateful to him. It is clear in description, wise and careful in advice, and vivid in its illustrations. No pupil can read it without being encouraged on the one hand and cautioned on the other. The book is essentially didactic and practical, dealing with facts and essential points of practice rather than with theories, and conveying much information in a short form. It is divided into two parts—1, the diagnostic; 2, the therapeutic—the whole being properly based on a first chapter of "Practical Points descriptive of the parts as they are met with in Health." We commend it heartily to students, for whose use it is chiefly written, and even practitioners will find it very handy and suggestive in many of the emergencies of practice.

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(1) *An Introduction to Pharmaceutical and Medical Chemistry (Theoretical and Descriptive).* (2) *An Introduction to Analytical Chemistry.* By Dr. JOHN MUTER, M.A., F.C.S., Director of the South London School of Pharmacy, &c. Published by William Baxter, at the Office, Kennington-cross.

THESE volumes form the second edition of a work which has found favour with pharmaceutical and medical students. The author has done wisely in dividing the work, and has in many other respects improved it. The analytical portion seems to us by far the best, for the arrangement, though somewhat unusual, is clear, and calculated, on the whole, to assist students. In the theoretical portion, on the other hand, the mode of classification is exceedingly inconvenient, and it is difficult to understand why an experienced teacher has adopted it. To introduce a student to the metals before he has learnt how oxygen and chlorine are prepared, and to place the oxides of chlorine before oxygen itself, are changes for which we are unable to find any valid excuse.

Agenda du Chimiste à l'Usage des Ingénieurs, Physiciens, Chimistes, Fabricants de Produits Chimiques, Pharmaciens, &c. Paris: Hachette et Cie. 1879.

THIS neat little volume of three hundred pages is a perfect marvel of conciseness and utility. It consists of three chapters, the first relating to physics, the second to pure, and the third to applied chemistry. In the first we find tables for the conversion of measures and thermometric scales, tables of densities, melting and boiling points, expansion, tensions, important logarithms, calorific equivalents, refractive indices, and the like. The second chapter contains a vast mass of condensed information, mostly in tables, on elements and compounds, analysis of solids, liquids, and gases, solubilities, spectra, &c.; while the third, arranged in eighteen sections, gives useful facts and figures in regard to acids and bases, metals, ceramics, combustibles and explosives, foods, agriculture, urine, photography, colours, and other important subjects. The arrangement of the whole is admirable, and the book will be invaluable to everyone concerned with chemical science.

Analytical Records.

OPIUM PREPARATIONS.

(SWAN & PROCTOR, NEWCASTLE-ON-TYNE.

MESSRS. SWAN & PROCTOR have placed before the profession a series of opium preparations containing a fixed and well-ascertained proportion of the principal ingredient of opium—namely, morphia. These preparations are:—

1. *Pulv. Opii Rect.*, with ten per cent. of morphia.
2. *Tinct. Opii Rect.*, free from narcotine, and containing three grains and a half of morphia per fluid ounce.
3. *Liq. Opii Rect.* Three grains of morphia per fluid ounce.

We have determined the percentage of morphia in some

of the samples submitted to us, with results closely agreeing with the manufacturers' statements.

It is hardly necessary to point out the great advantages which such standardised preparations must needs possess over ordinary opium preparations. Genuine opium varies vastly in the amount of morphia it contains, and hence equal weights of two different samples may produce widely different results, whilst the action of such preparations as those under notice will be found to be uniform and trustworthy. The example set might with great advantage be imitated in a variety of other extracts and tinctures.

LIQUOR OPII.

(JOHN LEE, 9, KIMBERLEY-TERRACE, GREAT YARMOUTH.)

Mr. Lee claims for his preparation that it will keep bright and free from sediment for any length of time, and we can affirm that the specimen sent to us was perfectly transparent and clear. It is stated to contain an ounce and a half of opium to twenty fluid ounces of solvent.

BILIN MINERAL WATER.

(L. EPSTEIN, 27, KING-STREET, CHEAPSIDE.)

This water closely resembles in its general characters the various mineral springs of Vichy—that is to say, it is rich in bicarbonate of soda (of which, according to an analysis made by Dr. Hassall and Mr. Hehner, it contains no less than 333·8 parts per 100,000), in sulphate of soda, and in free carbonic acid gas. It possesses a very pleasant taste, and ought to be of service in all cases in which Vichy water is employed, and in the correction of acidity of the stomach, gout, &c.

The residue obtained on evaporating the water, and containing all the mineral constituents of the same, is, with the addition of sugar, made into pastilles, of which samples have also been submitted to us. Their action is of course in general identical with that of the water.

WILHELMS QUELLE MINERAL WATER.

(7, BILLITER-SQUARE, LONDON.)

Chloride of sodium is the principal saline constituent of this water. It is very highly charged with carbonic acid gas, and possesses a very agreeable, cooling taste. We should think that the water of the Wilhelms Quelle will rank high as a table water pure and simple, in contradistinction to such waters possessing, as the Bilin Water, antacid or other medicinal properties.

FARINACEOUS FOOD FOR INFANTS.

(MESSRS. J. R. NEAVE AND CO., FORDINGBRIDGE.)

This food has been before the public for a great many years, notwithstanding the number of rivals with which it has had to contend, a fact in itself testifying much in its favour. It is very carefully prepared, and highly nutritious, which latter cannot be said of some of the articles sold as food for infants.

ETHYLATE OF SODIUM.

(MESSRS. J. ROBBINS & CO., OXFORD-STREET.)

This rather elegant preparation, devised by Dr. Richardson, possesses highly caustic properties, and will, no doubt, be found valuable in many cases for the removal of nævi and other vascular growths. The stopper of the bottle containing it is elongated to a point, so as to allow of the more accurate application of the caustic to the part affected.

ABSORBENT COTTON-WOOL.

(MESSRS. W. G. & J. STRUTT, BELPER, DERBYSHIRE.)

This wool has been treated so as to remove every trace of greasy or fatty matter. The consequence of this is that it has become highly absorbent. A piece of ordinary wool placed on the surface of water floats, and scarcely becomes wetted at all, whereas this wool rapidly absorbs the water and sinks to the bottom. It is, therefore, especially adapted for the use of the surgeon and dentist.

LUNACY STATISTICS.

LUNACY statistics, in common with most other branches of our national statistics, are bereft of much of their value by the want of uniformity between the figures published in the three divisions of the united kingdom. The statistics contained in the reports of the English Commissioners, notwithstanding vast improvement in recent years, are still deficient in many important respects—notably in information as to the ages of the insane population, and of the insane decedents. The Scotch reports are still more deficient in the statistical information requisite for studying the different aspects of lunacy; and when we come to consider critically the statistics of the Irish lunacy reports, it is evident that their shortcomings are still more marked than are those of the English and Scotch reports. Among the more important points which the statistics in lunacy reports should help to elucidate, may be especially mentioned: the proportion of lunacy to population, generally and locally; the increase or decrease of lunacy; the mortality among the insane; and the proportion of recoveries or cures. If we turn to the last lunacy report for Ireland, relating to the year 1878, we can only express surprise and disappointment at the meagre and unsatisfactory information it furnishes on any of these points. With regard to the proportional amount of lunacy in Ireland, we are told that "we may fairly assume that the principle of averages holds good in mental affections as existing in the United Kingdom in general; certainly so in the population of this country, which average may be set down at the rate of 3 insane to about 1200 sane." This vague and loose generalisation is all that we get on this point, and this loses what little value it might possess, from the fact that the Irish report takes no account of those insane persons who, not being inmates of asylums or of workhouses, live at home with relatives and others. Thus it is impossible to derive from the Irish report any information as to the real proportion of the insane to the total population in Ireland, which proportion is available for England and Wales. This defect of the Irish statistics, together with the omission of any table of results for years prior to 1878, makes it impossible to form any satisfactory conclusion as to the increase or decrease of lunacy in Ireland. There is scarcely an allusion to this interesting subject in the report except an assertion that "the inference may be naturally drawn that idiocy is on the decline in Ireland, because the idiotic element bears a larger proportion to the population aged over thirty years, than it does under fifteen years of age, or between fifteen and thirty years." Such an assertion is amusing from its simplicity, but it is not worth serious consideration. With regard to the mortality among the insane in asylums in Ireland, it is asserted that "it is lower than in like institutions elsewhere by nearly 1 per cent." During 1878, we are told, however, that the rate of mortality in the Irish asylums was equal to 77·5 per 1000 under treatment. If we calculate it, however, upon the average number resident, a far more trustworthy method, it was equal to 98·5 per 1000, which scarcely differs from the rate in the English asylums calculated in a similar manner. There is one noticeable feature in the mortality statistics of the Irish asylums; this is the fact that the mortality in 1878 was higher among the female than among the male inmates of asylums (102·2 and 95·3 per 1000 respectively), whereas in the English asylums an opposite result obtains. As no figures for preceding years are given, it is impossible to ascertain whether the Irish mortality statistics for 1878 were exceptional; if not, they require explanation. The figures given in the Irish report show that the proportion of recoveries, whether to admissions or to the numbers resident, compares very favourably with the proportions prevailing in England. But on this, as on other points, the results for a single year are of little value for comparative purposes. It is much to be regretted that some degree of uniformity in the statistical tables cannot be secured in the lunacy reports for the three divisions of the United Kingdom. Without this uniformity, useful comparison is impossible, although both desirable and important for ascertaining the effect of somewhat different systems. Apart from this defect, however, the arrangement of statistics in the Irish report is singularly bad, and many of the conclusions drawn therefrom in the report are objectionably vague and unsound.

THE LANCET.

LONDON: SATURDAY, AUGUST 23, 1879.

THE most friendly critic of parliamentary government will not find much material for praise in the session which has just come to an end; and if his point of view be a sanitary or medical one, as ours is, his praise must be still more attenuated. There was a great opportunity at the beginning of the session for earning credit in connexion with the question of medical legislation. In the previous session the Government had brought in a Medical Bill, which it was not found practicable to pass, chiefly on account of its not covering the fundamental question of the constitution of the Medical Council. As the previous Government had been foiled in exactly the same way, it is wonderful that the present Government did not see the unwisdom of attempting to pass a Medical Bill in which this part of the subject of medical reform was left out. The case for dealing with this part was even stronger. The Government had been promised a report by the Medical Council on its own constitution and the necessity for any change in it; and the Council had failed up to the meeting of Parliament to keep its promise. The Council did not even meet till March, and, deferring the question of its own constitution to the end of the sitting, it declined to express any opinion! Under all these circumstances, the Government had ample reason for not desiring to attempt legislation again till it was in possession of materials for a judgment on the working and constitution of the Medical Council. It was asked to take this course, in the House of Commons, by Mr. WADDY, on Feb. 14th. But Lord GEORGE HAMILTON said that, without prejudice to the subject of the Medical Council, the questions of medical education, foreign degrees, midwives, &c., might be proceeded with separately. Accordingly the Government introduced its Bill in the House of Lords. It was read a second time on the 11th of March. When it came to be discussed in committee, a very valuable amendment was made, giving to the Medical Council the duty of making examination and education rules. On the same occasion the midwifery clauses of the Bill were dropped. In the same week that the Medical Bill of the Government was read a second time in the House of Lords, on Wednesday, March 12th, a very useful discussion occurred in the House of Commons on the second reading of Dr. LUSH'S Bill. Very able speeches were made by Dr. LUSH, Dr. CAMERON, Mr. ERRINGTON, and others. At the conclusion of the debate, the Government made its first wise concession to medical reformers, and undertook that its Medical Bill should not be proceeded with till a Select Committee, which the Lord President expressed his intention to move for, had reported. Our readers are too familiar with the sequel for us to repeat details. Delay after delay occurred in the nomination of the Committee. At length Mr. ERRINGTON, on May 12th, plainly asked the Government whether, in view of the complicated state of the question, they would agree to refer the whole subject, or at least the whole of the Bills, four in number, to a Select Committee. The Government assented in a tone of slight reluctance. The Committee was not appointed till the second week in June. It soon began work, however, in earnest, and although it was unable to close the investigation of a difficult subject, it has made an excellent beginning, and has already accumulated information which cannot but be of use in guiding statesmen in legislation which ought to determine the organisation of the profession for at least a generation.

Perhaps the most satisfactory event of the session, from our point of view, was the discussion on the water-supply of the metropolis, initiated by Mr. FAWCETT, and the undertaking on the part of the Government by Mr. CROSS, to look into the subject during the recess, immediately, and in all its bearings.

Amongst the few Bills interesting from our point of view which became law was the Habitual Drunkards Bill, but even this was divested of most of its power by making the detention of the habitual drunkard dependent on his own option. It is not thus, we fear, that any large number of habitual drunkards are to be reclaimed. Lord SELBORNE, in the House of Lords, expressed his fear that the Bill did not go far enough, and his opinion that habitual drunkards were as dangerous to society as lunatics. In connexion with this subject we must mention the report of the Lords' Committee on Intemperance, containing a mass of information of permanent value and great interest. The Committee advise still further restrictions on the traffic—a return to the more stringent penal clauses of the Act of the late Government, and that the Legislature should favour municipal experiments like that of Gothenburg. A very important part of the evidence taken by the Lords was the medical. It was strongly in favour of the use of alcohol only in the most moderate quantities, if at all, and in association with food. But this part of the evidence was discussed by the Committee when a bare quorum was present, and represented as not sufficiently unanimous or decided to afford guidance in legislation. Another very disappointing feature in the report of the Committee is the absence of any recommendation in favour of placing grocer's licences, like other licences, under the control of the licensing authorities. The Government were soon asked what steps they intended to take with reference to the report, and expressed their intention of doing nothing this session. The report, however, is too important to be shelved, and the evil to which it refers is too serious to be ignored by any Government.

Discussions on the Artisans' Dwellings Act (TORRENS) and on the Act of Mr. CROSS, in the course of the session, showed that the first Act had been almost a dead letter, and that the second, in the metropolis at least, has been much more costly to the ratepayers than beneficial to the class of the community for whom it was intended. An amending Bill to the Act of 1875 was passed on the last day but one of the session. Another Act dealing weakly with a great evil, that of the Adulteration of Food and Drugs, has received slight fortification by the passing of an amending Bill, which provides that it shall not be necessary for the purchaser of an adulterated article to show that he has been prejudiced thereby. The Act also provides that spirits shall not be

reduced by admixture with water below 25° under proof, nor gin below 35°.

We need not dwell on Bills that have not passed. The present Parliament is great at two things—not passing Bills, and taking all the pith out of the few which do pass. In the former category we may mention Mr. DILLWYN'S Bill for amending the Lunacy Laws; the Coroners Bill; the County Boards Bill, &c. &c. The ingenuity with which urgently needed legislation is avoided, or the half-heartedness with which it is carried out, almost suggests the exhaustion of legislative capacity, and, as a remedy, the positive suspension of parliamentary action for a few years. The House of Lords did itself credit by rejecting, by a majority of 81, a Bill for the further restriction of vivisection.

The practice of questioning Ministers in the House has been freely used in regard to medical and sanitary matters. Not a few of these questions have naturally had reference to the circumstances of war and the rewards of medical service. During both the Afghanistan war and the most unfortunate war in South Africa the services of the medical officers have been conspicuously valuable, but, so far, they have not been too generously recognised by the State. Up to the last part of the session we have had to speak in terms of strong disapproval of Colonel STANLEY'S policy in not dealing more decidedly with the serious unpopularity of the Medical Department of the Service.

ANTISEPTIC SURGERY was not the only hobgoblin that crossed Mr. SAVORY'S path in his bold foray, a fortnight ago, at Cork. On every hand he saw horrid shapes in wild fantastic dance or sacrilegiously tenanting ruins of noble edifices. Everything was awry. Even his innocent audience had, one or other of them, all gone astray. They had set at nought the established principles of surgery, or sought to bring them into disrepute; they had become the slaves of reckless empiricism and the victims of extravagant speculation. With eyes wide open, they had bowed down to false idols, and wittingly denied the faith of their fathers. Under the evil training and pernicious influence of "antiseptic surgery" they had come to believe primary union almost impossible, unless aided by special appliances; and of that sheet-anchor of their ancestors, the well-made poultice, some of them had never seen a decent specimen. Their sins were, however, not those of omission only; they had committed the abomination of adopting the india-rubber drainage-tubes of CHASSAIGNAC. This would indeed be sad if true. It is not, however, all true; at least we must draw the line around the drainage-tube, and offer some defence. This, under present circumstances, is not a difficult task.

By a fortunate coincidence, Mr. SAVORY'S address appeared almost simultaneously with an exposition of the antiseptic system by Mr. LISTER himself, which anticipates all, or nearly all, Mr. SAVORY'S objections against the use of drainage-tubes. The *Dublin Journal of Medical Science* for August contains some notes, taken by Mr. W. THOMSON, F.R.C.S., of a demonstration in antiseptic surgery given by Mr. LISTER on June 26th at the Richmond Hospital, Dublin, during his sojourn in that city for the purpose of receiving the well-earned distinction of M.D. *honoris causâ* of the Dublin University. Useful though these notes be, and even excellent as supplying a pithy summary of Mr. LISTER'S views, they do not contain anything new for those who have studied Mr. LISTER'S writings. The only portion with which we are now concerned is that dealing with the subject of drainage-tubes. It will suffice to put Mr. LISTER'S description of the proper mode of using india-rubber drainage-tubes against Mr. SAVORY'S censures, and there leave them. Some previous explanation is, perhaps, necessary for those who may not read the whole of Mr. LISTER'S remarks. It must be remembered that Mr. LISTER is not engaged in defending the use of the drainage-tubes—that he takes for granted is agreed upon; he is merely describing the best way of using them. Making this allowance, we may accept Mr. LISTER'S remarks, as far as they go, as a complete answer to the objections put forward by Mr. SAVORY.

Mr. SAVORY condemns the routine use of drainage-tubes after operation. While appreciating the purpose for which they are employed, he contests both their adaptability and their utility. He thinks that "if the edges of a wound be not allowed to close before the deeper parts, and that by position the outlet be made sufficiently dependent, all accumulations may be avoided." In those exceptional instances where, after operation, he allows the insertion of something between the edges of a wound, or deeply into its substance, he prefers strips of thin gutta percha, or some thread of carbolised catgut. Beyond this he will not go; he even seems to deny the efficiency of a drainage-tube at all, and cites the gush of fluid that sometimes follows the withdrawal of the tube to prove that the tube fails to drain off "the greater portion of the fluid which forms in a wound." Lastly, he completes the indictment—for there are no half-measures with Mr. SAVORY—by declaring that the presence of drainage-tubes "is often directly and actively mischievous; they are foreign bodies in a wound; they irritate, they provoke suppuration and the formation of fluids." Can anything be more disheartening? The drainage-tube, in which so many of us have trusted, and which some have cherished as one of the most valued and valuable acquisitions of modern times, is not only unnecessary, but is useless, and often positively harmful! How is this perversity to be accounted for? Mr. LISTER, we think, furnishes the clue. Whatever may be said for or against the need of each and every one of the appliances that Mr. LISTER insists on in carrying out his system, no one who has witnessed and compared his practice with that of other surgeons can for a moment doubt that, although drainage-tubes are not peculiar to the antiseptic method, he has found the secret of using the drainage-tube. Indeed, when we remember this, we are forced to the conclusion that the plan of drainage that Mr. SAVORY so lustily decries is one that Mr. LISTER would likewise denounce. We will give Mr. LISTER'S instructions in his own words. Speaking of opening abscesses antiseptically, he says:—

"Drainage is provided for by the caoutchouc tubes of Chassaignac. In a large abscess I use one as big as my finger, and in smaller collections of matter tubes proportionately small.....In order to prevent the tube being pushed in too far, we have two loops of carbolised silk attached to the orifice, each of them knotted at its extremity. The orifice of the tube is placed on a level with the skin, and when the dressing is bound down it gets a purchase on these knotted pieces of silk stretched upon the skin, and so

the tube cannot leave its position. If the direction of the tube has to be oblique, we cut the orifice obliquely in proportion, so as to have it perfectly level with the surface. If the tube projects, it gets bent, and fails to convey the discharge properly. The opening in the skin is made merely sufficient for the admission of the tube. The tube does far better than a free incision."

Now, it will be noticed that Mr. LISTER is careful to insist on three things—the size of the tube must bear some relation to the size of the cavity into which it is to be introduced, and the amount of fluid that is to flow through it; the tube must be cut level with the edges of the skin, and fixed there; the skin-wound must be just large enough to easily admit the tube. There is in Mr. LISTER'S scheme no idea of the "moving to and fro" of the tube in a wound with the escape of pus, and no thought of expecting the tube to draw fluid upwards, of which Mr. SAVORY complains. Again Mr. SAVORY, as we have seen, bewails the gush of fluid *out* of the wound when the tube is withdrawn; Mr. LISTER, on the other hand, implores his disciples to take special precautions against the rush of air *into* the wound to fill up the partial vacuum that the withdrawal of the tube creates. "When you are removing the drainage-tube to cleanse it, be especially careful," he says, "that the spray is really over the wound. As it is withdrawn air of some kind must go in, and if it be not spray it will be septic air." After this we are surely justified in doubting whether Mr. SAVORY and Mr. LISTER are speaking of identical modes of practice. Has Mr. SAVORY really seen the kind of drainage of which Mr. LISTER speaks? If he has, most of his objections fall to the ground; if he has not, they do not apply.

In truth, this is a weak link in Mr. SAVORY'S chain of argument; nor do his alternate devices to replace the ordinary drainage-tube bear that stamp of ingenuity we have a right to expect in such a critic. Can anyone seriously hesitate between procuring drainage in the way and by the means that Mr. LISTER recommends and those that Mr. SAVORY would have us use? Will anyone say it is really better to prevent the edges of a wound from healing before the deeper parts, and to trust to position, than to allow the whole extent of the wound to heal with the exception of a single, cleansable, and healthy-walled channel in which the tube innocuously lies? Or, when mechanical apparatus is allowed, is a strip of gutta-percha, or some thread of a soft, imbibing, organisable substance like catgut, to be compared with an appropriate tube? There cannot, we think, be two opinions.

Drainage-tubes have truly become "fashionable" in surgery. That they are liable to abuse, and are at times abused, it needs no preacher to tell us. But, after allowing for any reasonable number of instances of abuse, we are much mistaken if the majority of surgeons, whether antiseptists or not, will consent to abandon such a powerful and simple aid to surgery, and such an effectual precaution against septic poisoning, as CHASSAIGNAC'S india-rubber tubes.

THERE have long been indications of a growing misapprehension in the public mind as to the professional status and work of the general practitioner. Scarcely a week passes without our receiving at least one request, and often it happens several urgent appeals, from patients or their friends for guidance as to the physician or surgeon whom it would be desirable to "consult" for some serious or obscure malady. It is needless to say our uniform reply to these interrogations is one or other form of the negative. Meanwhile this question, to which our attention has been somewhat pointedly directed of late, shows that the lay community do not thoroughly understand that the general practitioner is the medical authority with whom they have to deal, and the consultee—whether physician or surgeon—is the referee or special aid and counsellor of the ordinary medical attendant. It is of the last importance to the profession and the public that this should be understood. The hypothesis of practice is that certain men have, either by reason of ampler opportunity for prolonged and special study, or on account of some natural bias, devoted long and close attention to particular classes of disease, and are, therefore, prepared to place unusually large stores of knowledge at the disposal of the skilled general practitioner, who, as a matter of simple fact, is the only person qualified to appraise and appreciate the uses of consultation. There is no presumption that the physician or surgeon is, *cæteris paribus*, a better man than the general practitioner who calls him in; but he is, as it were, told off to do a certain class of work that requires leisure which the cares and engagements of practice among families do not afford.

It would be disastrous to the community and injurious to science if the custom of running *directly* to consultees, who are practically strangers to the constitutional habits of their casual patients, should attain wider development than it has already received. Consultation between a professional man and a lay client is, of course, impossible. There can be no consulting when a patient goes alone to a physician or surgeon. The most important element of a consultation is wanting. The *medical* history of the case is not made the basis of the conference as to treatment. Except in the cases of patients resident in a hospital, medical history, on which treatment should directly depend, is impossible, unless the patient has been under the continuous observation of a practitioner. It is the fashion of the day to ignore, or even question, the value of a medical knowledge of the family and life of a patient. We are antiquated enough to place the highest estimate on information of a nature which, except in rare instances, can be possessed only by the general family practitioner. Patients who flit about among the consultees fail to give any man, however acute in diagnosis or therapy, a fair chance of curing them; whereas one gleam of light such as the general practitioner, who has, perhaps, observed the patient more or less constantly during a lengthened period, could throw on the case, might determine or correct a judgment formed on present, or at best recent, appearances, and in not a few instances, probably, would make all the difference between success and disappointment.

We have, on more than one occasion, directed attention to the professional aspects of this question, and there has been reason to know that our remarks have been appreciated. It is, however, with the general phase of the subject we are now chiefly concerned. It seems desirable, at a time when the profession is, so to say, at the bar of public opinion, seeking new powers for self-organisation, to make a distinct expression of opinion as to the use and value of those con-

tinuous and unobtrusive services rendered to the community by the great body of general practitioners. Much stress has very properly been laid during the last ten years especially on the work done for the population by the public health officers. There is not a word to be said in depreciation of the services performed by these functionaries, but it must not be forgotten that the bulk of the medical work accomplished for health and science we owe to the men who attend families, and exercise an almost paternal influence over the habits of hygiene adopted by the masses. The heat and burden of the defence and onslaught against disease are borne by the multitude of busy men with a permanent *clientèle*. We repeat, it would be a disaster if, by the spread of any misconception, the relations between families and the body of general practitioners should be loosened at a time when they ought to be drawn tighter. No forced development of the scientific status of specialists and consultees would compensate for the disturbance of those confidential connexions between the mass of middle and upper class families and households and their permanent medical advisers. The adoption of wise and progressively improved modes of life, and the general and orderly observance of sanitary laws, can only be carried out effectually by the continuous influence and watchfulness of the family practitioner. The labours of the public officer in the cause of health, and the occasional advice of the specialist and consultee, sought in moments of exceptional difficulty, depend for their full value on the persistence, and, as we have said, unobtrusive, services of the practitioners who stand in the closest relations to families and individuals, and who, *only*, are so placed as to be able to promulgate and enforce the laws of health while they combat the small beginnings of disease. The scientific physician or surgeon knows better than anyone else, probably, how important the first departure from health, far too trivial, seemingly, to be ever brought under his own notice, really is.

In the interests of health and science, it is urgently necessary that general practitioners should be provided with the most perfect knowledge of principles, and with the power and skill to recognise disease at its outset. The community, as a whole, is more deeply interested in the ability of the general practitioner than of the consultee. It rests with the medical man who is called in instantly and for the slightest, and apparently most insignificant, maladies, to perceive the first advances of disease, and grapple with them while they are still weak and amenable to treatment. If general practitioners were well advised they would seek the assistance of specialists and consultees in many comparatively small illnesses, which are only half cured, and too often never properly understood. It must, however, always rest with the family doctor to deal with these smaller maladies, from which the greater spring. The custom of repairing directly to the consulting-rooms of physicians and surgeons will never develop a satisfactory style of treatment or one which would be safe and successful. Unless the physicians and surgeons lower their fees, in which case they would simply themselves become general practitioners, there must ever be some reluctance on the part of a person who is only a "little" ill to seek their assistance. Asking physicians and surgeons to lower their fees "that the best advice may be brought within the reach of all classes" is, in fact, urging them to dispossess themselves of the qualification which makes their advice worth seeking. If the man who now devotes his leisure to study and practice as a consultee is to place his services at the command of everyone who can pay a small fee, he will, at once, lose his claim to be a special counsellor. The aim of reformers has been to raise the status of the great body of general practitioners to as high a level of efficiency as is consistent with their being overwhelmed with the details of medical treatment in relation to the smaller and more numerous manifestations of disease. This has been in great measure accomplished. The general practitioners of to-day are, probably, as highly educated in practical medicine as the physicians of forty years ago, and, making full allowance for the progress of science, they have made wonderful advances. It is at once the duty and interest of the lay public to recognise this; and to perceive that so far from the occasional advice of physicians and surgeons being of a nature to replace the services of the general practitioner, and render recourse to "the family doctor" unnecessary, it is now more than ever requisite that the ordinary medical adviser—the general practitioner—should be promptly and frequently consulted, because the light which science has recently thrown on the first beginnings of disease makes it important that these should be instantly recognised by a medical friend, and because it is only by the continuous observation and counsel of such a friend, in the family and the household, the full benefit of sanitary science as a preventive system can be secured.

THE manner in which general tuberculosis is disseminated from a local caseous focus has not yet been so thoroughly worked out as has been the development of secondary cancer; for, although few would be found now to deny that acute miliary tuberculosis is the result of infection of the organism from a local starting-point, yet we have hardly got beyond the general assertion that this infection takes place through the bloodvessels and the lymphatics. Facts, indeed, point to both these paths of transmission; and, as regards the lymphatic system (with which tubercle seems to have special affinities), anatomical research has fairly well established the doctrine of its special infection. We have examples of this in the local infection of serous membranes—e. g., the peritoneum—from contiguous tubercular or caseating foci; and as the lymphatic glands are *par excellence* the seat of caseous (or "tubercular") inflammation, the existence of lymphatic tubercle, perivascular tubercle, &c., is readily explained. But observations upon the actual infection of the lining membrane of bloodvessels, similar to the infection of other endothelia, still afford scope for investigation. It is for the demonstration of this point that Dr. MUEGGE, pathological assistant at Gottingen, contributes a paper in a recent number of VIRCHOW'S *Archiv*, his observations being limited to the pulmonary bloodvessels in ten cases of disseminated tubercle of the lungs. He points out that ROKITANSKY'S dictum that the lining membrane of bloodvessels enjoys complete immunity from tuberculosis is incorrect, and he refers to facts recorded by WEIGERT and KLEBS in support of this, to which his own observations lend further confirmation. WEIGERT met with miliary tubercle in the pulmonary vessels in a case of hæmoptysis, and also

describes two cases of acute tuberculosis in which giant-celled tubercle was found in the larger pulmonary veins. KLEBS found tubercles in the pulmonary vessels in experiments on rabbits, and also records the occurrence of miliary nodules in the interior of the larger pulmonary vessels in a case of human miliary tuberculosis. The inquiry undertaken by MUEGGE at the suggestion of Professor ORTH was simple enough. By merely laying open the bloodvessels in tubercular lungs he found in all the cases he examined some granulations growing from the lining membrane. The number of these intravascular nodules was in proportion to the number of granulations scattered in the interlobular and interalveolar tissue of the lungs. They occurred far most extensively in the veins, and in the smaller tributaries more than in the larger trunks, their chief seat being at the point of entrance of one vein into another. Of spheroidal shape and well-defined margin, they project into the lumen of the vessel, sometimes being barely visible, sometimes as large as pins' heads; the smaller granulations being greyish and translucent, the larger yellowish throughout or yellowish in the centre and grey at the margins. Often in close proximity to tubercle in the surrounding tissues, they occurred also in parts removed from such.

It is important not to confound these granulations with localised inflammatory thickenings of the lining membrane, or with organised thrombi in the vessels. The microscope may be necessary to distinguish between these forms of intravascular change. Simple inflammatory formations are differentiated by the fact that they do not rise abruptly from the surface of the intima, that they are more flattened than the tubercles, that they occur in ridges, and in structure are composed of wavy interlacing bundles of delicate fibrous and spindle-celled tissue between the endothelium and the undulating fenestrated membrane. Small thrombi, composed mainly of leucocytes and fibrin, are less easy to distinguish, but even here the presence of the endothelium between the thrombus and the vessel wall would suffice to distinguish them. Sometimes such a thrombus may overlie a tubercular granulation.

Microscopical preparations exhibit the granulation as a spheroidal body springing from the lining membrane of the vessel, and composed of closely-packed cells as large as or larger than white blood-corpuscles. The cells contain one or more nuclei within granular protoplasm, and a fine reticulum binds the cells together. Only rarely are giant cells to be found; and the larger granulations are either entirely caseous or else caseous in the centre with a periphery of cells. The elements of inflammatory thickenings are not only round, but spindle-shaped, and do not form the whole mass of the nodule; whilst the leucocytes embedded in a thrombus are less plainly differentiated. The relations of the thrombus to the endothelium, however, help to distinguish it from a tubercular granulation. The tubercle is a growth of the intima; the characteristic wavy line of the fenestrated membrane bounds it beneath; and frequently the subjacent muscularis and adventitia show no change whatever. Sometimes, however, both the outer and middle coats of the vessel are the seats of tubercular growth, in which case there are generally pneumonic and tuberculous foci in the lung-tissue adjacent. So that sometimes—just as granulations spring up on the serous surface of the intestine corresponding to tubercular ulceration—the adventitia and muscularis are the seat of tubercle infected by the growth in the intima. The author admits here that the question as to which was primary—the growth in the outer or that in the inner wall of the bloodvessel—cannot always be determined. The relation of the endothelium to the tubercular granulation is not readily made out, owing to the great delicacy of the former. Here and there MUEGGE succeeded in preserving the endothelial layer passing over the tubercle. In one fortunate specimen a thrombus surmounted the granulation, and the line of the endothelium divided the clot from the tubercle. In most specimens the endothelium could be seen mounting up the sides of the granulation, but it was rarely preserved over its summit; and sometimes not only the endothelium, but a portion of the second layer of the intima lay over the tubercle. It would seem, then, that the latter was developed, not from endothelium (as in other serous membranes), but in the subendothelial tissue, from growth of connective-tissue cells, aided possibly by migrant leucocytes from the vasa vasorum, or from the blood circulating in the vessel itself. Each of these sources is open to objection—the former that tubercle of the intima occurs often unassociated with tubercle of the adventitia or muscularis; the latter that the tubercle grows in arteries, which, according to COHNHEIM, are never the seat of cell-migration, even in the most intense inflammation. On the whole, then, it is simpler to conclude that the tubercle is developed from proliferation of connective-tissue cells alone.

The import of this research, if well grounded, is simply this:—It proves that in tuberculous subjects the blood may be, and is, infected with the poison. It proves that just as in the case of lymphatics leading from the seats of tuberculous change, and becoming themselves the seat of fresh tubercular growth, so here the bloodvessels themselves may bear witness to their contaminated contents. There is no strained analogy between this and the ulceration of the air-passages in a phthisical lung by the passage of tuberculous material over them. Both may be regarded as examples of local infection of tubercle. The rapidity with which the blood-current flows in the arteries renders these vessels far less prone to such infection than the capillaries and the veins. The capillaries may be the chief seats of the development of granulations disseminated throughout the lung, and much of the poison may be arrested there, but not all; for the occurrence of the granulations in the veins testifies to its passage onwards; and it is interesting to note the comparatively larger number of granulations in the veins than in the arteries, a difference probably due to the difference in the rate of the blood-stream. The main meaning of it all is that it is as strictly correct to speak of the blood as it is to speak of the lymphatic system being the medium for the dissemination of tubercle.

WE are by no means prepared to receive with such unqualified gratification the promises of the Home Secretary regarding the metropolitan, urban and suburban, water-supply, made in the House of Commons on the 13th inst., as they appear to have been received by honourable members who took part in the discussion. It is true that Mr. CROSS has promised that before Parliament shall again meet

the Government will cause an investigation to be made of the "whole subject" in "all its bearings"—to wit, "whether the water-supply could be improved for the benefit of the inhabitants of London; whether, if so, it could be done without seriously increasing the cost of supply to the consumer; whether the mode of supply could not be easily improved; whether it was necessary for that purpose that the water companies should not by agreement surrender their powers to somebody to be appointed by the Government, or whether there was any other mode in which the question could be more satisfactorily dealt with." But it is also true that a significant want of accord between the statements of himself and of his colleague the President of the Local Government Board (who is almost equally concerned with the subject) indicates that the conclusion upon which these promises were framed must have been come to by the Government at the last moment, without due consultation between the two Ministers, and that it must be received with considerable qualification. Investigations are elastic matters, and have been an ordinary part of the normal machinery with which the inhabitants of the metropolis have been diverted again and again for a long period of years from their efforts to procure a better water-supply; and before the promised investigation comes to an end we have no security that Parliament itself may not have lost its interest in the subject, that it may not have been swallowed up in the excitement of a general election, and that the results of the investigation may go merely to swell the appalling mass of material relating to the subject accumulated in previous investigations. Indeed, it is obvious that both Mr. CROSS and Mr. SCLATER-BOOTH approach this business with fear and trembling. Both display an almost painful anxiety to propitiate the bodies they are required to muzzle or extinguish lest in the process they should come by an unlucky bite or kick. Both were charmed with the moderateness of Mr. FAWCETT'S speech in bringing the subject before the House. But really, asked the one, was it the companies so much as the local authorities who were in fault as related to the immediate interests of the consumers? and, quoth the other, the Thames at the intakes of the various companies who draw water from it is, after all, a reasonably reputable river, and is becoming more reputable every day; the Registrar-General's statistics show that its quality is maligned; and do not "we" supervise its doings and the doings of the companies who operate upon it and distribute it in the metropolis and suburbs? These little straws of opinion thrown up during the discussion prove that the set of Government opinion is by no means so fully in the direction Mr. FAWCETT and his friends would have, and as Mr. CROSS'S promises would seem to imply.

It will now, however, become a discredit both to Parliament and to the Government if this important question shall again be suffered to drift into the limbo of good but unfulfilled intentions. We have hope that in Mr. FAWCETT'S hands the further discussions with regard to it will be in a measure purged of that disingenuousness which has hitherto so largely characterised them. It is true that the efforts made to divert the more obvious sources of impurity from the Thames above the intakes of the water companies, are about to be crowned with apparent success, but has the purity of the stream been so improved thereby as to make it one whit the less necessary to seek for a supply from purer, if more distant, sources? It is true that the law makes the "effectual filtration" of the water supplied by the companies a cardinal point of their duty; but has the heavy fine for non-fulfilment of this duty, notwithstanding repeated scandalous neglects, ever been enforced, the companies, on the other hand, never failing diligently to enforce such penalties as they may claim from defaulting consumers? It is true, also, that very much of the impurity of supply complained of—and that of most concern in the moral and social aspects of the question—has been of house-origin—that is to say, has depended upon defects of storage or provision for storage, in houses; but has there at any time been any serious attempt to obviate this grave evil, by the action of the local authorities, so far as occupiers and the sanitary bearings of the matter are concerned; and by the Legislature, so far as the duties of owners, and the abilities of occupiers, were in question?

Throughout the whole of the long-continued, wearisome discussions on the water-supply of the metropolis there has been a sickening deficiency of thoroughness and consistency. The subject is one which a great statesman might well rejoice to have put into his hands for dealing with, and we can sympathise with Mr. FAWCETT'S half-expressed regret that he felt it to be his duty, setting party feeling aside where no party question should exist, to give an opportunity to Conservative statesmen to unravel the vexed question and display their qualities of statesmanship at the same time, and so rob, as it were, Liberal statesmen of a chance of rehabilitating themselves in public estimation—metropolitan at least. Let us hope, however, that Mr. FAWCETT himself will not lose his hold of the subject until his reasonable hopes, and the hopes of his constituents and of the population of the metropolis at large, have been realised.

Annotations.

"Ne quid nimis."

THE LAWS OF QUARANTINE.

THE important subject of the Laws of Quarantine was brought forward on the 14th inst. by Sir Sherston Baker, Bart., at the conference of the Association for the Reform of International Law, held in the Council Chamber, Guildhall. The existing enactments relating thereto were explained at length, and an outline of suggestions (referring, however, to plague, yellow fever, and cholera only) was given, which, the speaker thought, "if honestly observed, should save a country, or part of a country, from being placed in quarantine by other States—so long, of course, as that country itself be free from disease." The suggestions are almost identical in effect with those proposed at the International Conference held some three or four years ago, when the chief continental nations, as well as the United Kingdom, were represented mainly by medical delegates. But Sir Sherston Baker did not, unfortunately, do what might have been hoped and expected from a legal mind—strike at the root of the subject by proposing to abolish the last Quarantine Act (passed in 1828) altogether, and so reform matters that the political and sanitary aspects of the question would not be likely, as now, to clash. We look to members of the other profession to help us in this somewhat difficult business; for until politics and health are made to

harmonise, we must expect the recurrence of such circumstances as occurred some few months ago, when cargoes of rags, supposed to be the possible importers of plague from Russia, formed the bone of contention, and gave an opportunity for a display of official (though ducal) want of knowledge, sufficiently amusing to on-lookers, but more than sufficiently exasperating to those whose commercial interests were affected by the absurdly impracticable line of action proposed for adoption by the Privy Council. It is a pity that, at the conference which forms the text of our remarks, no port medical or legal officer was present to explain how quarantine regulations are likely to be influenced by those clauses of the Public Health Act of 1875 that refer to ships, travellers by sea, and cargoes; for it was manifest by the discussion that followed Sir Sherston Baker's paper that the speakers had no precise knowledge of these clauses, even if cognisant of their existence. We repeat, therefore, that some sanitary officer should have been asked to join in the debate; and, as the sittings of the conference were held at Guildhall, an excellent opportunity occurred of enlisting the aid of the port of London staff in the elucidation of this question. We see that the subject was deemed important enough to be referred to a Select Committee, and trust that, before its report is presented to the Association, the "port" clauses of the Public Health Act, as well as the officers engaged in port sanitary work, will be consulted. Two or three cases (to which we have already referred) of importation of disease into the Thames have recently occurred which strikingly show with what friction the Quarantine and Public Acts work, the officers connected with both being blamed for inefficiency of duty, whereas the fault lies in the present state of the law, and not with those responsible for its administration.

SANITARY TEACHING IN "BOARD" AND OTHER SCHOOLS.

"A PERTURBED CORRESPONDENT" writes to us concerning certain recent discussions among school-managers of various sorts on the teaching of the rudiments of sanitary science in elementary schools. Pressure on space prevents us from publishing his communication, but we are unwilling that his argument should be wholly lost, although we must divest it of the raciness and vigour which attach to the plainest of plain language in the most uncompromising English. He scoffs contemptuously at the discussions to which we have referred, and asks if these things are to be taught to the scholars, who is to teach the teachers? In other words, he argues that it is desirable, before instructors begin to instruct, they should have some knowledge of the subject of instruction, and he asks what evidence is there that such knowledge of sanitary science exists among school-managers and school-teachers? Here he takes up his parable against them, and relates a story of a personal experience of *new* schools, school-managers, and school-teachers, from which he infers that the recent movement for the teaching of rudimentary sanitary science in elementary schools has begun at the wrong end—it has begun at the benches, when it should have begun within the sacred precincts of the manager's room and at the teacher's desk.

And this, in rough outline, is the story. A run through several rural districts in several counties. A sort of fascination with the numerous new schools which were to be seen everywhere, with hardly an exception buildings of architectural pretensions, some very beautiful, few which did not form pleasant objects in the prospect, all betokening more or less thoughtful care in their arrangements, *with one exception*. And that exception, our correspondent argues, marks the spurious nature of much of the recent discussions as to teaching rudimentary sanitary science in schools. From the days of the General Board of Health (if not from earlier date) it has been well known that if there be one curse of unwholesomeness which has undoubted pre-eminence of other curses of the same class, it is the curse of slovenly and utterly barbarous modes of disposing of excremental filth which obtain generally in country districts, and too commonly also in towns. It has long been understood by those who have given serious thought to the matter, that if ever we are to witness the hereditary habit of foulness to which we refer eradicated, and with it the physical and social mischiefs to which it gives rise, it must be by inculcating better habits, and the knowledge of better habits, in children from their earliest years. The argument seems to be obvious, but our correspondent avers that he found new school after new school, although generally unexceptionable as to lighting and ventilation, perpetuating the local barbarous customs of filth-disposal, and thus fostering in the children those habits of indifference in this matter which have formed the greatest obstacle to thorough sanitary reformation, and still form, in the greater part of the kingdom, whether in town or in country districts. He found, in fact, these schools, as one of their instructional elements, assisting, as it were, and that most efficiently, to counteract the operation of some of the most beneficent provisions of the Public Health Law relative to nuisances. Nor was this all. If he ventured to indicate to teachers of the male sex the impropriety of such arrangements, he was met with the indignant rejoinder that this was no concern of theirs. If he hinted the subject to teachers of the female sex, his interference was treated as an offensive breach of good manners. If he broached the subject to a manager, the best answer he got was that no better arrangements were known or could be devised. And so he, not unnaturally, came to the conclusion that the movement for teaching rudimentary sanitary science in schools had begun at the wrong end, and he writes contemptuously of a proposed teaching which would substitute for sound example a mere arrangement of pretty phrases covering the crassest ignorance.

Making every allowance for our correspondent's vehemence, we fear that there is much truth in his argument. Where so glaring a defect of practice has been permitted to exist in our new schools, it is permissible to doubt the genuineness of a discussion on the part of their managers on the teaching of rudimentary sanitary science within them.

THE OUTBREAK OF CHOLERA AT HURDWAR.

THE Sanitary Commissioner to the Government of India, Dr. Cuningham, has issued, under date June 12th, a memorandum on the late outbreak of cholera at Hurdwar, which is a curiosity of Indian official sanitary science. The memorandum has for object to elicit the facts of the outbreak with the greatest exactness possible, and to aid this purpose it suggests that certain specified data should be collected by the district officers. Further, to facilitate the collection of the data without "a preconceived bias," the memorandum proceeds to discuss briefly certain elements in the ordinarily conceived notions (as he understands them) of the spread of cholera, and so, unconsciously, converts his suggestions as to the data to be procured into leading questions! Dr. Scriven, the civil surgeon at Lahore, has taken the trouble to examine the sanitary commissioner's memorandum in some detail, in a very able letter published in the *Civil and Military Gazette* for July 11th, 1879, and which is valuable from his distinguishing questions which are peculiar to Dr. Cuningham himself, and questions which are entertained by that gentleman in common with the generality of scientific men. It is not requisite that we should follow Dr. Scriven's analysis, for we are, perhaps, more concerned here with a question to which Dr. Scriven does not refer. The

memorandum is issued for scientific purposes, and, as we have said, is dated June 12th. The outbreak at Hurdwar had occurred at an earlier period of the year. It was the year of the "great fair"; this and the date of the assembling together of pilgrims were perfectly well known; it was certain that many of the pilgrims would come from districts infected with cholera, and it was by no means improbable that the fair of this year might be marked with as serious an outbreak of the disease as had happened in the previous "great fair" twelve years before. What English sanitary observers of a scientific bent are puzzled about is this, how it came to pass that a measure of "scientific" procedure is suggested in June, after the fact, and that it was not suggested earlier in the year, before the fact. Imagine the detachment of astronomers sent to India to observe the transit of Venus leaving this country for their destination after the transit was over!

THE ARMY MEDICAL DEPARTMENT.

WE are glad to learn that Colonel Stanley has adopted the course which we suggested as necessary in the interests of the service, and has postponed the examination of candidates for the Army Medical Department till the end of September. There is reason to believe that before then the Treasury will have decided the financial questions connected with the new Warrant, and that the War Minister will be able to announce definitely the conditions upon which the successful competitors will be required to serve. In this he has shown sound judgment, for we believe, from the numerous communications which have reached us on the subject, that had he pressed forward the examination before the promulgation of the Warrant he would have failed to secure one-tenth of the number of candidates required to bring up the Department to its establishment. Whether he will succeed in obtaining the requisite number even after this delay will depend greatly on the decision of the Treasury. If the terms offered correspond with those recommended by the War Office Committee, we have little fear of the result. Meanwhile we congratulate the younger members of the profession on the result of their having judiciously abstained from offering their services to the authorities until clearly defined conditions are announced, and we trust that such of them as are disposed to enter the army will soon have an opportunity of doing so with a fair prospect of an honourable career before them, and a due share of those rewards and distinctions which have hitherto been withheld, or at best dispensed with a niggardly hand.

THE PHYSIOLOGICAL ACTION OF CHLORIDE OF PILOCARPINE.

WE are indebted to Dr. Stanislaus Poniklo, assistant in the medical department of the University of Cracow, Austria, for the following abstract of a paper published in Polish in the "Warsaw Medical Archiv." The author is Dr. Smolenski, who has investigated the physiological action of chloride of pilocarpine. Dr. Smolenski injected this substance subcutaneously, in doses varying from 0·01 to 0·02 gramme, in thirty-four cases, with the following results:—1. In regard to the circulatory apparatus, within a period varying from one to ten minutes after such injection, and usually antecedently to salivation and sweating, a sensation of fulness and heaviness in the head was experienced; the face became redder, and dilatation of all the visible vessels, whether arterial or venous, was observed. In five of the cases dilatation of the vessels of the retina was observed under the ophthalmoscope. 2. The frequency of the pulse, also antecedently to salivation, was increased. The pulse became not only fuller and larger, but softer and almost invariably dicrotous. The changes in the pulse were always investigated by means of Sommerbrodt's sphygmograph, and the sphygmograms obtained pointed to a condition of diminished elasticity of the coats of the vessels; no elastic vibrations were visible. 3. The next constant symptom was salivation, which reached its acme in the course of twenty or twenty-five minutes after the injection, and disappeared after the lapse of an hour. The quantity of saliva secreted stood in a direct relation to the quantity of the drug injected. Its sp. gr. varied from 1·004 to 1·015. Traces of sulphocyanide of potassium were found. 4. The salivation was constantly accompanied by sweating. The acme of increased perspiration coincided with the acme of salivation. 5. Pilocarpine had no influence either on the quantity or the specific gravity of the urine. 6. Smolenski distinguishes two stages in the influence of pilocarpine on the temperature of the body, a primary and a secondary. Immediately after the injection the temperature rose 0·1° to 0·4° C., but subsequently fell 0·2° to 1·2° C. 7. The presence of fever does not change or modify the above-mentioned effects of pilocarpine. No perceptible influence is exerted on the eye when the drug is subcutaneously injected, but after the introduction of a drop of a solution into the conjunctival sac a moderate degree of myosis is induced, which disappears in the course of from two to four hours. In this respect, however, pilocarpine is less powerful than eserine. 8. Amongst the accidental symptoms observed were nausea, headache, sensation of fatigue, drowsiness, and in one case rigors and general convulsions. 9. Atropine acts as an antagonist to pilocarpine, and nitrite of amyl prevents the occurrence of some of the occasional symptoms observed after the use of pilocarpine. The effects on the circulatory apparatus Smolenski ascribes to diminished irritability of the vagus nerve caused by decrease of blood pressure; the diaphoretic action of pilocarpine he attributes to peripheric irritation of the perspiratory nerves (in accordance with Luchsinger's experiments. The sialogogue properties he also attributes to a peripheric irritation of the nerves of the salivary glands, because the section of the chorda tympani, or of the cervical part of the sympathetic, does not prevent the occurrence of the salivation. All the experiments were performed under the supervision of Professor Korczynski.

"HIGH" OR "PUTRID."

IT may be, and doubtless is, difficult to define the boundaries between the quality so much appreciated by the epicure, who likes his game "high," and that of putridity, which probably disgusts everybody, and can benefit none; but some attempt should be made to draw an arbitrary line. Cooks, to their other accomplishments, should add that of being able to determine whether a bird or haunch of venison is simply "maturing," or passing prematurely into the condition of fermenting putrescence. The date of slaughter does not supply all the information required, especially in the case of venison. Some carcasses "turn off" in a revolting fashion in a few days, or even hours, instead of simply becoming tender, and still fit for food. The lower animals are probably subject to nearly as many diseases as affect the human frame, and it may very well happen that out of the deer and birds shot no inconsiderable proportion are suffering from disease. Any person who likes to take the trouble of putting a score of braces of birds, or a dozen joints of venison from several carcasses, to the test of smell at close quarters, will acquire an edifying, if not altogether appetising, notion of the perils that beset the *gourmand*, if not also the *gourmet*. A caution to cooks is never untimely at this season, and it will be especially prudent after a run of weather like that which we have been enduring. These functionaries probably enjoy a monopoly of the power to save us from perils of indigestion, or worse. The pur-

veyors of game, who are the only other persons so situated as to be able to protect the public, cannot be expected to devote special attention to the discrimination between high and putrid. The distinction is far too delicate to be commercially important or even interesting.

PORT SANITARY WORK AND THE IMPORTATION OF DISEASE.

WE are exceedingly glad to find from the columns of our contemporary, the *Metropolitan*, that the sanitary authorities of the Whitechapel district, doubtless urged thereto by their energetic officer of health, Mr. John Liddle, were determined to find out with whom the responsibility rested of importing small-pox into London from Hamburg by the steamship *Hawk* some few weeks ago. The authorities having learnt the state of the law as regards port sanitary authorities, and it being shown that the Sanitary Committee of the Corporation were not at fault in the matter, took the case to head-quarters and communicated with the Privy Council. They have recently received a letter from the clerk of that tribunal, indicating that the customs' officers at Gravesend have been examined, and that to them it seems no case of sickness was reported. Hence the usual sanitary clearance was given (the captain of the ship having declared his ignorance of the existence of small-pox on board), the vessel came to moorings, and, as we reported last week, the patient was landed before the sanitary officers had an opportunity of visiting the vessel and inspecting those on board. It is unsatisfactory that the state of the law permits this condition of things, and we reiterate the opinion that if port sanitary authorities cannot see their way out of the difficulty, it is their duty to apply to the Local Government Board for powers to enable them so to deal with such cases that the importation of dangerous infectious diseases in the manner indicated shall be rendered an impossibility. And the port authority of London in this, as in other cases, should set the example.

THE PURSUIT OF HEALTH.

THIS being the time, we can scarcely say the season, at which custom enjoins the pursuit of health by sojourn in some strange locality for the sake of "change," and the weather affording an opportunity, if, indeed, it does not constitute an occasion, for reflection, it may be worth while to balance the probable advantages and disadvantages of the course fashion has prescribed. No doubt change is useful as breaking the monotony of life, and it is conceivable that, under special circumstances, it may be true, according to the old adage, that any change is better than none, even if it be from bad to worse. It is not, however, we must assume, with the intention of placing themselves amid surroundings peculiarly untoward as regards the probabilities of health-preservation that heads of families tax their pockets with great expenses and incur manifold inconveniences in order to give their progeny an annual change. Nevertheless, an increased proportion of risk is generally part of the change accomplished by removal to the seaside or any of the customary summer resorts in England and on the Continent. The way to put the practical question involved is, whether paterfamilias, being an ordinarily intelligent man, really thinks that removing his family to a few small rooms in a crowded house, with bad drains, a wretched water-supply, noise, dirt, and the unaccustomed forms of vileness encountered in an average lodging-house in one of the places pleasantly called "health resorts," is a promising or even a safe proceeding. If the diseases actually contracted in lodgings, or of which the seed, so to say, is planted during the annual holiday, were traced to their true sources, we doubt whether the practice of "going to the seaside," or living in hotels and in other folks' houses generally, would not be abandoned as too perilous a pastime. It is, doubtless, agreeable to change the scene, and the effect of the autumnal worry and excitement voluntarily endured year after year may be to stimulate the brain and nervous system advantageously, but it is at least open to question whether a fortnight on the treadmill with prison fare, or a little "tramping" with a round of the casual wards in metropolitan and provincial workhouses, would not constitute as good, though, perhaps, not as agreeable, a stimulus. Seriously, the manner in which the annual outing is taken, with blind disregard for danger and defective sanitary arrangements, which would not be tolerated an instant at home, discredits the common-sense of adventurous parents of children and reckless adults of both sexes. Better far stay in London at this season—when the metropolis is especially enjoyable—than needlessly run the risks of infection, of cold, of exhaustion, and disease, which are ruthlessly incurred, with no better reason than that custom prescribes an exodus from town, and so the family must go, anywhere and under any circumstances, so that the behest of fashion be obeyed.

A NEW SAPROPHYTE.

A PRESUMABLY new bacillus has been found by Professor Eberth in the body of an otter which died after a few days' illness, the symptoms being loss of appetite and lassitude. Post mortem, besides injection of the intestinal mucous membrane and enlargement of the spleen, the only pathological change was an aggregation of minute points of suppuration in the liver. In these numerous bacteria were found, which were also seen in less abundance in the vessels elsewhere. The organisms formed cylindrical rods, composed of one or rarely two joints, the rods being but little less in length than the diameter of a red blood-corpuscle. Their contents consisted in uniform, dull-looking substances; on the addition of a dilute solution of iodine or of the pigment termed "Bismark-brown," dirty-brown granules appeared in these rods. The diameter of these granules was nearly that of the rods. Whether they were spores or merely strongly tinted portions of the contents, Eberth could not decide. Free granules resembling spores could not be seen between the rods.

These organisms resembled the bacillus of anthrax more closely than any other, but differed in their greater size, transverse and longitudinal; the one being five and the other six micro-millimeters in length. Moreover, Eberth asserts that this new bacillus is rounder at the extremities of the rods than the other, and shows no disposition to the formation of elongated chains. It appears to be a powerful excitant of inflammation, as the suppuration testified—a characteristic which scarcely belongs to the bacillus of anthrax. Eberth's observations are published in Virchow's *Archiv*.

PROPAGATION OF CHOLERA THROUGH WATER.

The Times, in a recent notice of Surgeon-Major Townsend's report on the epidemic of cholera, observed in the Central Provinces of India in 1875–76, while doing justice to the labours of that gentleman, failed to do justice to the medico-sanitary staff of our great dependency generally. We cannot affect surprise at this, for it must be difficult for outsiders to understand that the opinions entertained and acted upon by the Government of India in respect to one of the most important modes of propagating cholera, that through the water-supply, can be at variance not only with European opinion on the subject, but also with the opinions of by far the greater number of observers in India. Such is the case, and Professor Maclean, of the Netley School, has done useful service by correcting in the columns

of *The Times* the error into which it has inadvertently fallen. It is well that the public of this country should be reminded from time to time that the Government of India, in respect to this important subject, has isolated itself from European opinion, from the opinions of the teachers who are responsible for the tuition of its most important medical agents in India, and from the opinions of its sanitary staff throughout India, with the rarest exceptions. The experience of observers so honoured by the profession as Dr. Norman Chevers on this matter is simply pooh-poohed by the Government of India. Surgeon-Major Poole, M.D., of the Bengal Service (retired) contributes to the same journal, as part of this discussion, an instructive illustration of the fact that cholera has relations to water-supply in India similar to those observed in this country and Europe generally.

THE CHOLERA IN INDIA AND AFGHANISTAN.

OUR Indian correspondent continues to record deaths from cholera amongst officers and men in Afghanistan and Northern India. The epidemic is spreading in Cabul and Kandahar with much severity. From the latter place cholera camps have been pitched some miles distant from the city, and unless it subsides within a few days General Stewart had determined to move the greater part of the garrison to Pishin; this step will, however, be avoided if possible on account of the intense heat of the weather. The troops, should the move become necessary, would have to run the gauntlet between heat-apoplexy and cholera. The Afghan summer, though late and short, is very excessive, with a dry scorching heat. At Cabul the natives were suffering severely, with a proportionate mortality; and the escort and followers of Major Cavagnari, our envoy, had been attacked.

DEATH OF DR. BURKE, THE REGISTRAR-GENERAL FOR IRELAND.

THE appointment of Dr. W. Malachy Burke, a year or two since, to the post of Registrar-General, was a good one, both theoretically and practically. Dr. Burke had previously filled the post of Medical Superintendent of Vital Statistics in the General Register Office, and had thus had opportunities for showing his capacity for filling the more important office of Registrar-General. That such capacity was not overlooked when the appointment of Registrar-General fell vacant was a credit to a Government which resisted the inevitable temptation to bestow such an appointment upon a political adherent, in order to insure special efficiency for the duties. That Dr. Burke's appointment proved the actual success which theoretically it should have proved must have been patent to all who have had cause, from time to time, to study and use the vital statistics which are issued from the office of the Registrar-General for Ireland. Since Dr. Burke's appointment as Registrar-General there has been an evidently increasing tendency to uniformity between the Irish statistics and those issued by the Registrar-General for England. This willingness to co-operate with the Registrar-Generals for England and Scotland for the purpose of securing greater uniformity between the reported vital statistics of the three portions of the United Kingdom, was supplemented by improvements in the arrangement of the statistics, some of which are worthy of imitation by the Registrar-General for England. We may specially note that Dr. Burke introduced a valuable improvement of the Irish Weekly Return when that publication first attempted the distribution of deaths in public institutions in accordance with the previous residence of the deceased inmates. Still more recently, an attempt has been made, under the provision of a clause in the Public Health (Ireland) Act of 1878, to secure greater completeness in the system of death-registration in Ireland, with the help of burial returns from the various burial-grounds and cemetery boards. Even if this be not the best system that could have been devised for remedying the imperfections of Irish death-registration, it was eminently satisfactory to find that these imperfections, which appreciably affect the vital statistics of the United Kingdom, were engaging the attention of the late Registrar-General for Ireland.

The almost sudden and quite unexpected death of Dr. Burke is to be seriously regretted in the interests of Irish vital statistics, especially in their relation to public health. The present Government by this sudden death will, within a few months, have the opportunity of appointing two of the three Registrar-Generals for the three divisions of the United Kingdom. It is earnestly to be hoped that in filling these appointments their public health aspects will not be overlooked. The success that attended Dr. Burke's appointment should encourage the Government, in selecting new Registrar-Generals for Ireland and England, to secure in the nominees special qualifications for the duties which have so important a bearing upon the progress of public hygiene in the United Kingdom. Apart from political considerations, there need be no practical difficulty in the way of appointing officers who shall alike possess a lively appreciation of the value of vital and mortal statistics, and the requisite knowledge of the best methods of dealing with them, as well as that business-like capacity for organisation which is necessary to the satisfactory performance of the duties of Registrar-General.

PUBLIC HEALTH IN LONDON AND PARIS.

DURING the six weeks ending last Saturday, whereas the annual death-rate was but 18·0 per 1000 in London, it was equal to 22·5 per 1000 in Paris. These figures signify that during these six weeks mortality in Paris exceeded that which prevailed in London by 25 per cent. Want of uniformity in the returns for the two cities, and in the classification of the fatal diseases, creates difficulty in the way of comparison. The last return from Paris shows, however, that of 907 deaths reported during the week ending the 14th instant, 81 resulted from infantile diarrhœa, 30 from diphtheria, 27 from typhoid fever, 16 from measles, and 12 from small-pox. The fatal cases of infantile diarrhœa, diphtheria, typhoid fever, and small-pox showed a marked excess in Paris compared with the numbers in London, after correction for difference of population. The largest proportional excess occurred in the deaths referred to diphtheria, and it is worthy of note that fatal cases of croup were also excessively numerous compared with the number so returned in London.

THE LOCALISATION OF ARSENIC IN THE BRAIN.

THE important discovery made a few years ago by MM. Gauthier and Scolosuboff, that arsenic administered to an animal becomes deposited in considerable quantities in the brain, has suggested to two French investigators, MM. Caillol and Livon, a further series of experiments for the purpose of ascertaining in what condition the arsenic is accumulated, whether as a simple deposit or as an organic compound. The cerebral substance contains two elements—phosphorus and nitrogen—with which arsenic has many common characters. The three bodies form similar compounds, and in many of these one element may be substituted for the other without affecting the general characters of the compound. Phosphorus exists in the brain in the form of lethicine, it is supposed as a phosphoglyceric acid, combined with a base, neurine. In the waste of the brain lethicine probably breaks up, and phosphoric acid ultimately results and passes away by the urine. Arsenic

may replace either nitrogen or phosphorus, and in the former case may form a compound analogous to neurine, in which the nitrogen is replaced by arsenic, and in the latter case the replaced phosphorus may be expected to be eliminated in undue quantity, combined with oxygen or in some organic compound. The first object of the experiments was to ascertain whether the elimination of phosphorus underwent any change during the administration of arsenic in small doses, which produced death in about a month. It was found that during the period of arsenical poisoning the quantity of phosphorus eliminated was considerably increased. It is inferred that this phosphorus must have been turned out of its compounds of the brain, but it may be thought that this conclusion is scarcely beyond criticism, for the excretion may be the result of a morbid state depending on the presence of deposited phosphorus.

THE LYMPHATIC GLANDS IN ANTHRAX.

M. COLIN described at a recent meeting of the Académie de Médecine a fresh series of investigations on the part played by the lymphatic glands in the development of anthrax. It will be remembered that in a previous series of experiments, published last November, to which we directed attention at the time, he studied the changes in the glands as indications of the point of entrance of the poison into the system. The chief object of his later investigations was to compare the glandular changes in apparently spontaneous anthrax and in that which is produced by inoculation. In the slow "spontaneous" form the glandular lesions are widely spread, but do not invalidate the law previously ascertained, since their order may be distinguished by the obvious differences in their age and the degree of change which they have undergone. The gland is found first to become injected, then infiltrated, then virulent and filled with bacteria, yielding these to the circulation, and gradually passes into a state of gangrene at periods which are definite. After having ascertained the course of the glandular changes in animals in which the disease has a rapid course, M. Colin proceeded to compare with this the changes in animals in which the disease has a very slow course, causing death only at the end of ten or twelve days. In these the organisms multiply with difficulty, and often perish without causing any fatal degree of the affection. Finally, M. Colin has found that in the animals which are the most difficult to inoculate, as the dog and the cat, the virus does not succeed in establishing itself in the gland, although the latter is in free communication with the wound, where an active morbid state is for a time in full operation. A further communication on this subject is promised.

POISONOUS PAPER COLLARS.

STATEMENTS have for some time past been going the round of the journals to the effect that paper collars, cuffs, and other similar articles contain arsenic, and hence give rise, in some instances, to irritation and eruptions of the skin. We have been at some pains to ascertain how far these statements are based on facts. A variety of paper collars and cuffs have been subjected to analysis, and we may state the results in the interests alike of the manufacturers and of the public. We found the whole of the articles in question to be entirely free from the smallest trace of arsenic, but they were faced or glazed, on the outer surface only, with sulphate of baryta, which was present in large quantity. This is one of the most insoluble of substances, and provided that it is pure and free from any soluble baryta salt, we believe that no inconvenience or danger is likely to arise from its employment. Still it is very desirable that its use should be discontinued, and that a substitute for it should be adopted, as it is quite possible that in some cases it may be admixed with soluble compounds of baryta, which are poisonous, and which, if present, would be calculated to give rise to injurious irritation of the skin.

We have reason to believe that sulphate of baryta is the substance usually employed by manufacturers in the glazing of paper collars, it being preferred in consequence of its pure white colour, and that arsenious acid or arsenic is rarely, if ever, used.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THE report of the Manchester and Salford Sanitary Association for 1878 is somewhat depressed in tone, as might, perhaps, have been anticipated from the commercial depression which prevailed throughout the district of its operations during the period to which it refers and for some time before, and which has affected the prosperity of the Association. The report refers to the successful institution of a scheme for skilled house-inspection for sanitary purposes; to a correspondence between the Association and the Health Committee of the Corporation of Manchester on the application of the Artisans' Dwellings Act to Manchester; to an amalgamation of the Association with the Ladies' Sanitary Reform Association; to a proposed amendment of the weekly returns of disease published by the Association, &c. The popularity of the public "winter lectures" given by the Association continues, the lecturers for the past winter being Dr. Dreschfeld, Dr. Arthur Ransome, Dr. Henry Simpson, Dr. Holgate Owen, Dr. John A. Irwin, Mr. John Watts, Ph.D., and Mr. Joseph Corbett.

NAVAL NOTES.

THE *United Service Gazette* gives the unsatisfactory, but by no means unexpected, news, that only seven candidates presented themselves the other day at Burlington House for appointments in the Medical Department of the Navy, in which between fifty and sixty officers are required to bring the staff up to its proper complement.

We have, on several recent occasions, commented upon the condition of our naval barracks at home. It would appear that things are not much better at foreign stations, the temporary naval barracks at French Creek, Malta, being, it is stated, situated between a coal depôt and a sewage-pumping engine-house, "a combination of evils which neither makes the men happy nor healthy."

UNHEALTHY OYSTERS.

"THE oyster season has commenced" is just now a familiar notification. It will not, however, be out of place to suggest that, for this year at least, the oyster season might judiciously be postponed. It can scarcely fail to happen that the beds have been drenched with the scourings of rivers, and it is hardly possible that the influx of unusual food can have acted otherwise than deleteriously upon the oyster. Eaters of "the succulent bivalve" will do wisely to restrain their appetites a while until the effects of recent prolonged disturbance have had time to subside.

A MEDICAL HOLIDAY.

A MEDICAL man who takes a good holiday not only does good for himself, but sets a good example. When such a medical man—or better still his wife, who has shared the holiday—gives a lucid account of it, and of the possibility of getting three weeks travel in Switzerland and on the Rhine for a sum of less than forty pounds, a great service is rendered to a number of people at this time of the year. Such is the service rendered by Mrs. Ducat, of Highbury, whose clear and lively letter in *The Times* of the 14th inst. should

be read by all travellers who love to see nature and do not wish to waste either time or money. It is not every doctor or every doctor's wife who has the pedestrian power in such force as Dr. or Mrs. Ducat, but we may readily believe that even in them it was largely a matter of training, and that the training by which they fitted themselves for their holiday was as beneficial as the holiday itself.

EXCESS OF SUICIDE IN LONDON.

No less than 16 more cases of suicide were registered in London last week, whereas the corrected weekly average is scarcely 6. Thus in the four weeks ending last Saturday 51 suicides were recorded in the metropolis, the corrected average of the corresponding period of the last ten years being but 22. The 16 cases recorded last week included 6 by hanging, 3 by drowning, 2 by gunshot, 2 by poison, 1 by cut throat, and 2 by other means. The rank or occupation of the suicides would throw some light upon the causes of the recent marked excess of this form of death in London; this information, however, does not find a place in the Registrar-General's weekly return.

THE SALIVA OF ALBUMINURIACS.

AT a recent meeting of the Académie des Sciences, M. Vulpian communicated a note upon the increase of albuminous substances in the saliva of persons suffering from albuminuria. In the course of therapentical observations on the effect of subcutaneous injections of pilocarpine, he found that the saliva collected from a patient suffering from Bright's disease, after these injections, contained a larger quantity of substance precipitated by heat and nitric acid than under normal circumstances. The same fact was noted after a second injection, which caused little sweating and much salivation. The increase compared with the amount of albumen in persons not albuminuric, under the same treatment, was very marked. In some observations undertaken, at the request of M. Vulpian, by M. Strauss, the same fact was observed. In M. Vulpian's case the œdema was slight. The renal disease was of a mixed form, presenting the characters of parenchymatous and interstitial nephritis. In the first of M. Strauss's cases the patient was a man forty-two years of age, suffering from a parenchymatous nephritis of six months' duration. The saliva, after the injection of pilocarpine, contained ·253 grm. of mucin and ·182 grm. of albumen per thousand parts of filtered liquid. The second patient was suffering from mitral disease, with much albuminuria, and after the injection the saliva was found to contain ·45 grm. of mucin and ·145 of albumen per thousand. In a patient not suffering from albuminuria, the saliva, after the injection, contained ·320 grm. of mucin and ·050 grm. of albumen per thousand. This interesting fact may perhaps, be explained by supposing an infiltration of the glands by the serosity of the œdema. If not, we must assume an alteration of the epithelium of the salivary glands, or a modification of the albuminoid principles of the blood. No attempt appears to have been made to compare the saliva of albuminurics and other persons without the injection of pilocarpine.

DEATHS OF MEDICAL OFFICERS FROM CHOLERA.

WE regret to announce the deaths of two more army surgeons from cholera in Afghanistan. Surgeon-Major John Wallace, Army Medical Department, died at Lundi Kotal on July 18th, from an attack of this disease. Mr. Wallace joined the army in 1864, and was promoted surgeon-major in 1866. He served for many years in the 12th Regiment, was present with that corps throughout the New Zealand campaign (medal and clasp), accompanied it to India, and at the time of his decease was in medical charge of the regiment at Lundi Kotal. Dr. Walsh, whose death is also recorded from cholera, belonged to the Bengal Medical Service, and had served throughout the Afghan war with Major-General Stewart's column.

No less than seven medical officers of the Royal and Indian Medical Departments have lost their lives in the present cholera epidemic.

THE death of Surgeon-Major Wallace, from cholera, at Lundi Kotal, on the night of the 16th instant (says the *Pioneer Mail*, Allahabad, of July 23rd, 1879), makes the sixth medical officer's death we have had to record within the past few weeks—viz., Surgeon-Majors Kilroy and Wallace, and Surgeon De Caux, from cholera, Surgeon-Major Kelsall from exposure on the march out from the Khyber, Surgeon-Major Wright from sunstroke at Attock, and Surgeon Smythe murdered near Thull. Who can wonder in the face of these facts that the medical officers ask to be treated in the same manner with regard to sick leave, honours and rewards, &c., as their so-called "combatant brethren"? Dr. Wallace had passed his entire service in the regiment, and was a universal favourite with every officer and man in the corps, so that his death, under the present circumstances, will be much felt.

PROFESSOR SAYRE, last week, while on a visit to Dublin, gave a demonstration, at the Orthopædic Hospital in that city, of his method of treating spinal disease. A vote of thanks on behalf of the profession present having been tendered, Professor Sayre, in acknowledging the compliment, stated that in his own practice, out of 109 cases treated by him, 63 had resulted in complete cure, whilst in all the other cases there had been a marked improvement.

THE medical officer of health for Whitby (Mr. John Taylerson), in his report for the quarter last past, gives an excellent account of the freedom of that charming seaside resort from infectious diseases, and of its general healthiness.

MR. S. J. SMITH, C.E., one of the inspectors of the Local Government Board, recently held an inquiry at Chelmsford with reference to a proposal of the local authority there to borrow £20,000 for the purpose of extending their sewerage works.

WE understand that the President of Queen's College, Belfast, has sent in his resignation.

THE BRITISH MEDICAL ASSOCIATION.

(From our own Correspondent.)

Cork, Friday, August 8th.

THE business of this the concluding day of the meeting commenced with an address on Public Health, by Dr. Andrew Fergus, of Glasgow. Dr. Fergus having been summoned home, the address was read in his absence by Dr. M'Call Anderson. The first portion of the address was an interesting historical review of the rise and progress of State medicine—a department of our art which, the lecturer maintained, was not new, but was probably better understood and more thoroughly carried out in times of remote antiquity than any other branch of the healing art; and in proof of this he referred to the regulations enforced in Leviticus. Coming to our own time, he analysed the mortality returns made by the Registrar-General since 1838, and showed how in many respects the public health had improved from progress in sanitary science. The improve-

ment, however, was not general; the most striking fact being that the mortality from the diarrhœal group of diseases had largely increased; that diphtheria had become endemic since 1851, prior to which year it does not appear in the returns; and that there has been far less diminution in the fatality from typhoid fever than in that from other zymotics during this period. Pointing out that these were all excremental pollution diseases, Dr. Fergus proceeded to enforce the view that the water-carriage of sewage lay at the root of this; supporting his argument by facts coming under his personal cognisance of the decay of soil-pipes, the escape of sewer-gas, &c. He said that, "after years of further study and investigation, I can only adhere to my opinion, expressed many years ago, that 'if it is true that organic poisons producing disease may pass from sewage; if it is true that cholera, diphtheria, typhoid fever, and diarrhœa are traceable to taking into our systems, by air or water, the results of decomposition of human excreta; if it is true that these diseases and others from the same causes, swell our death-rate and carry off some of the most valuable of our population, then, gentlemen, I affirm that the only true sanitary solution of our difficulties is, that all excreta shall either be returned to the earth or subjected to chemical action rendering decomposition impossible; and I am furthermore sure that if a tithe of the time, skill, and ingenuity, and one-thousandth part of the money that have been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago.'"—On the motion of Dr. Stewart, seconded by Surgeon-General Crawford, a cordial vote of thanks was passed to Dr. Fergus.

The sections assembled at eleven o'clock. In the Medicine section the subject of Tracheotomy in Croup was discussed. Dr. Corley, of Dublin, opened the subject in a paper urging the operation, which he characterised as one of the most serious in surgery, to relieve laryngeal obstruction, and held that it should not be too long delayed. Dr. Squire followed, and speaking of the after-treatment of tracheotomy cases, deprecated the use of steam. Mr. R. W. Parker then read a paper dealing chiefly with the indications for the operation; and papers were also read by Mr. W. Thomson and Dr. Renfrew. A brief discussion followed. Dr. Hayden read an interesting paper on Certain Varieties of Cardiac Neurosis; and Dr. James Cuming on a case of Diplegia. The case was one of double facial palsy, with impaired movement of the tongue, but no affection of taste. Time did not allow of any further papers being read in this section, which adjourned, after passing a hearty vote of thanks to Dr. Clark.

There was no special subject for discussion to-day in the Surgery section. Mr. Teevan gave a summary of one hundred cases of operation for Stone in the Bladder; Dr. McDonnell one on the Intravenous Injection of Blood and other fluids; Mr. E. Owen one on the Cause of Eversion of the Limbs after fracture of the neck of the femur. Mr. W. D. Spanton described a new instrument for the radical cure of Inguinal Hernia, which he has now employed with good result in several cases. The instrument is constructed like a corkscrew, and is used to hold the hernial sac in place after it has been replaced in the inguinal canal, the instrument being introduced through the abdominal wall just above the internal ring. He had used antiseptic precautions in all his cases.

In the Ophthalmological sub-section several papers were read. The following is a brief summary of the work done in this newly-formed department during the week. The most important communications were those by Mr. Swanzy on Colour Blindness, Dr. Hirschberg on Tobacco and Alcoholic Amblyopia, Dr. Brailey's description of his very careful microscopical investigations into the Morbid Anatomy of Glaucoma, Dr. Fitzgerald's excellent and practical paper on Knapp's Peripheral Division of the Capsule in Cataract Extraction, and Professor Macnaughton Jones's paper on the Use of Eserine, Pilocarpine, and Gelsemine, &c. Among those who took an active part in the proceedings were Mr. Fitzgerald, Dr. Little, Mr. Power, Dr. Hirschberg, Mr. Mason, Mr. Vose Solomon, Dr. Brailey, Mr. Swanzy, Mr. Nettleship, and others. Important papers were read from Professor Cohn (Breslau) on Colour Perception, and from Dr. de Wecker on Sclerotomy in Glaucoma. The chair in this sub-section was to have been taken by Mr. Jonathan Hutchinson, and much disappointment was felt at his unavoidable absence. His place in the chair was filled in turn by Messrs. F. Mason, H. Power, and D. Little. It is expected that this sub-section will be called into existence again at the Cambridge meeting next year, where it will doubtless prove even a greater success than on this occasion.

In the section of Obstetric Medicine papers on Inversion of the Uterus were communicated by Drs. Barnes, Atthill, Aveling, and Wallace; and on the Vomiting of Pregnancy by Drs. Graily Hewitt and Copeman.

In the section of Public Medicine, Dr. H. Tweedy, of Dublin, read a paper on the Causes of Death in Ireland; Dr. Henry Chapman one on the Sanitary Arrangements of Dwelling-houses, especially on improvements in the ventilation and trapping of sewer-pipes. A paper by Dr. Bonnafont, of Paris, was read in abstract. It was entitled "Reflections on a General Scheme for Improving the Sanitary Conditions of Unhealthy Countries, having in view the prevalence of epidemics, the production of the soil, the health and prosperity of populations." The author urged the institution of a Ministry of Public Health, an office much more important than Minister of War. A vote of thanks was passed to Dr. Bonnafont for his paper. Dr. Bernard read a paper advocating the extension of the Contagious Diseases Act to all seaports; and Dr. Joseph Rogers vigorously exposed the Anomalies and Deficiencies of the Poor-law Medical Relief System in the United Kingdom. He reviewed the labours of the Poor-law Medical Officers' Association, and their efforts to obtain reform, and pointed out where several anomalies of the system in Ireland, Scotland, and England could best be remedied. In England, he held that it would be necessary to secure an extension of the dispensary system generally throughout the provinces; the rearrangement and curtailment of districts where excessively large; greater powers conferred on district medical officers of ordering food and stimulants; a compulsory, in lieu of a permissive, system of superannuation; and the general introduction of efficient medical inspectors. He urged the profession to seize the opportunity of the approaching general election to enforce their views.

In the Psychology section, a paper on Intemperance in Study, by Dr. Hack Tuke, was read, and one by Dr. Ringrose Atkins, on Softening of the Bones in the Insane.

In the section of Physiology, Dr. Norris continued his demonstrations. A paper was read by Dr. Harvey on the Causation of the Dicrotic Pulse-wave; and one by Professor Charles on the Velocity of the Circulation through the Lungs. Dr. Garson communicated a note on the Arrangement and Distribution of the Longitudinal Fibres of the Rectum; and Dr. Sigerson a paper on the Function of certain Nerves supplying the Tongue and Soft Palate, considered in connexion with the sense of taste.

At 1.30 P.M. the concluding general meeting was held. The report of the Hospital Out-patient Reform Committee was read and adopted, and the committee was reappointed. Mr. Hart then moved, and Dr. F. Barnes seconded, a proposition to form a committee to consider and report whether it would be desirable to adopt the metric system in medicine in Great Britain and Ireland; and whether the British Medical Association should by any means, and if so by what means, facilitate its introduction. The proposition was strongly supported by Dr. Seguin of New York, who stated that several of the States Medical Societies were urging its adoption, and that the American Medical Association had lately resolved to adopt the metric system and to request its employment by hospital and dispensary physicians and by pharmacists.—The report of the Registration of Diseases Committee was read and adopted and the committee reappointed, and like formalities were gone through with the Parliamentary Bills Committee, Surgeon Crawford upholding the system of competitive examination for entrance into the army. A series of resolutions were carried, embodying votes of thanks to the President and Council of Queen's College, to the Mayor and citizens of Cork, and to all those who had by their hospitality contributed to render the visit a success, as well as to the local secretaries, Professor Macnaughton Jones, Drs. Ringrose Atkins, D. C. O'Connor, C. H. Harvey, and T. Gelston Atkins, and to Dr. Denis C. O'Connor "for so courteously presiding over this forty-seventh annual meeting of the Association."

In the afternoon a Garden Party took place in the extensive grounds surrounding Queen's College. The weather was fortunately favourable, and a large number of ladies graced the meeting with their presence. This evening a concert has been given in the Assembly Rooms. It was most numerously attended and fully appreciated; the music, both vocal and instrumental, being of the highest quality. Lastly, it may be added, that several excursions

have been arranged for to-morrow; those to Glengarriff and Kilkenny being the most sought after. Others are planned to Lismore and the Blackwater, to Queenstown, and Blarney Castle. The Duke of Devonshire will entertain the visitors at Lismore, and Sir G. Colthurst at Blarney.

HEALTH OF LARGE ENGLISH TOWNS

IN THE THIRTY-THIRD WEEK OF 1879.

JUDGED by the Registrar-General's mortality statistics the public health in England continues in an unusually satisfactory condition. In twenty of the largest English towns, containing nearly a third of the entire population of England and Wales, 5481 births and 2647 deaths were registered last week. The births exceeded by 299, while the deaths were as many as 723 below, the average weekly numbers during 1878. The deaths, however, were 186 more than those in the previous week. The annual rate of mortality per 1000 persons living in these towns, which had been equal to 18·5 and 17·4, rose again last week to 18·7. In the past seven weeks of the current quarter the death-rate in these towns has averaged but 17·8, against 20·9 and 25·5 in the corresponding periods of 1877 and 1878. The lowest death-rates in the twenty towns last week were 8·4 in Plymouth, 10·4 in Brighton, 11·1 in Wolverhampton, and 14·7 in Norwich. The rates in the other towns ranged upwards to 19·5 in Newcastle-upon-Tyne, 19·7 in Nottingham, 20·8 in Leicester, 21·6 in Liverpool, and 21·8 in Manchester. The deaths referred to the seven principal zymotic diseases in the twenty towns further rose last week to 518, of which 210 resulted from diarrhœa, 94 from scarlet fever, and 80 from measles. The annual death-rate from these seven diseases averaged 3·2 per 1000 in the twenty towns, and ranged from 0·6 to 0·7 in Norwich and Wolverhampton, to 4·2 in Bristol, 4·3 in London, and 5·1 in Liverpool. The greatest proportional fatality of scarlet fever occurred in Sunderland, Liverpool, and Leeds. The fatal cases of diarrhœa in the twenty towns, which had been 86 and 141 in the two preceding weeks, further rose to 210 last week; but in the corresponding weeks of the three years 1876–7–8 the deaths referred to this disease were 753, 488, and 818 respectively. The highest death-rates from diarrhœa occurred last week in Liverpool, Leicester, and London. Small-pox caused 4 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined to 96 on the 9th inst., were 101 on Saturday last; and 35 new cases of small-pox were admitted to these hospitals during last week, against 18 and 20 in the two preceding weeks. The Highgate Small-pox Hospital contained only 5 patients on Saturday last.

INTERNATIONAL RULES OF QUARANTINE.

AT the Thursday sitting (August 14th) of the Association for the Reform and Codification of the Law of Nations, held at the Guildhall of the City of London, Sir Sherston Baker, Bart., read a paper on International Rules of Quarantine, containing a number of excellent suggestions, which he presented in the form of forty articles. The following brief outline of his suggestions refers to the plague, yellow fever, and cholera:—An "international bill of health" to be granted by the local authority of the port of departure to every vessel, and to be delivered up by the vessel at the ultimate port of destination. This bill to be *visé* at the port of departure by the consul representing the port of destination, in such terms as he shall think fit. A similar *visé* to be required at every port touched at, both from the local authority and from the consul representing the port of destination. This bill of health to be accepted in all ports of the high contracting parties. A foul bill of health or a case of disease, past or present, on board, or the fact of any port having become infected within a limited time after the departure of a vessel from it, to authorise the local authority of the port of arrival to place the arriving or touching vessel in quarantine, according to a certain scale, containing a maximum and a minimum period of quarantine; it being optional to every State to adopt any period within those limits. Every State to preserve its own municipal quarantine system, except on such points as may nullify or contradict these articles. Measures of disinfection for passengers, crew, and cargo to be required, but in every case to be left to the municipal regulations to supply the details. Lazarets and hospital-ships to be provided in sufficient number, and to be regulated according to the best sanitary principles, but again the details to be left to the municipal authority. To avoid the necessity of placing a whole State in quarantine, especially where a State comprises distant colonial possessions, each country to be divided by its own government into territorial divisions, to be termed quarantine "centres." Each State to engage to guard rigidly against any infected "centre," and to place the same in quarantine. The lecturer further mentioned that in England the statute 6 Geo. IV., c. 78, was limited in its operation to the United Kingdom; but that it was not called into requirement in England except in cases of plague, yellow fever, and cholera, owing to the ample manner in which the sanitary work is carried out under milder regulations by the officers of the "Port Sanitary Authority," which Authority is constituted by the Local Government Board by virtue of the "Public Health Act, 1875," and is now in operation at all the chief ports of England.

Mr. Walford said he thought science ought to be applied to the rectification of the present laws of quarantine, which were discreditable, and required immediate amendment.

Professor Kovalsky, of Moscow, strongly supported the suggestions contained in the paper, especially the suggestion of quarantine "centres," which very fairly met a great practical difficulty. He thought that some amendment of the law was necessary.

Mr. Washington Lyon inquired if Sir Sherston Baker had made any inquiries with respect to the working of the Sanitary Committee of the Port of London?

Sir Sherston Baker replied that he had done so, and had obtained very valuable information from Mr. Harry Leach, the medical officer of the port sanitary authority, which had been of much practical assistance to him in considering the general question of quarantine.

The paper was referred to a select committee, who were instructed to report on the subject.

Correspondence.

"Audi alteram partem."

ICELAND AND CONSUMPTION.

To the Editor of THE LANCET.

SIR,—At the recent meeting of the British Medical Association, during the discussion on the value of mountain air in the treatment of phthisis, the immunity enjoyed by the inhabitants of Iceland and the steppes of Tartary was pointed out by Dr. Jagielski as evidence against the specific efficacy of mountain air.

Now, if this immunity is founded on well-authenticated facts, it may be admitted, as negative evidence, in conjunction with the positive proofs afforded by the many hill summits in this and other countries, that mountain air, *per se*, possesses no specific influence; but neither can affect the view that mountain air, *plus* shelter, dryness, stillness, and sunshine, affords, as at Davos, if not a specific benefit, at least the conditions under which, according to Drs. Allbutt, Bennet, and others, most cases of consumption do best.

But this is not the point to which I wish to draw attention, but rather to investigate the statement of the immunity possessed by the inhabitants of Iceland and the steppes of Tartary, the truth or the reverse of which, particularly as regards Iceland, cannot fail to be of the greatest importance, now that cold *versus* heat is so much recommended for *poitrinaires*.

In reply to Dr. Jagielski's assertion, Dr. Bennet said he was unable to explain the immunity possessed by Iceland,

an inability which is shared by many, and by some to such an extent as to cause them to receive *cum grano salis* the statement itself, at least until it is accompanied with such data as will reasonably illustrate—first, why such common immunity should exist in two regions possessing such different climatic conditions, such different elevations, and such different topographical, geological, and regional formations as the places under consideration; and, secondly, what are the conditions, climatic or social, connected with either country which give its inhabitants freedom from a disease which, according to Professor Aitken, of Netley, is prevalent everywhere.[1]

Let us first direct our attention to Iceland, noting the difference between it and the steppes of Tartary, with a view of ascertaining whether the weight of evidence is in favour of freedom from phthisis, or the reverse.

Iceland.—This island is situated between 64° and 65 north latitude; while the 20th meridian of west longitude passes through it. It lies in the Arctic, or polar zone of disease, in a north-north-west direction off the coast of Scotland, from which it is distant about 5°. It is remarkable for its volcanoes and geysers, or hot springs. In extent of surface it is much larger than either Scotland or Ireland, and yet only maintains a scanty population of 60,000 souls; which, according to the rule applicable to all old countries, that the population of the country is in a direct ratio to the fertility of the soil, furnishes abundant evidence of the poverty and unhealthiness of the land, where leprosy, elephantiasis, and influenza prevail, and where—as Mr. Keith Johnson affirms—the vast majority of the inhabitants succumb before the age of fifty to asthma and catarrhal affections of the respiratory organs, brought on mainly by the extreme cold and the biting winds which prevail in the island for a great part of every year. The inhabitants are fish-eating to a considerable degree, and live in small, badly-ventilated huts, buried in many cases beneath the surface of the earth.

A great deal more might be added to this description, but I think enough has been said to show that the weight of evidence, reasoning from analogy, is against the immunity from consumption, and affording some proof, even, of the existence of that disease.

To what, may I ask, is to be attributed one-third of the death-rate of the British and other armies, in whatever climate they are found? The answer is—"consumption." And why? Because—according to Parkes, and all military surgeons who have written on the subject—of the confinement of the men in close barracks, assisted in some slight degree by unwholesome food, dram-drinking, and enforced celibacy, with the evils it entails—all of which, with the exception of the last, are found in Iceland, but to a much greater degree. Yet, are we to believe in a different result? If so, the effects of the climate must be marvellously good.

Again, according to Aitken and others, consumption is universal. And is it possible for us to avoid surmising the connexion between the asthma and catarrhal affections alluded to and phthisis? If so, we must fall back on the old theory of the disease, and put outside our consideration all we have learned of pneumonic phthisis, or tyrosis, which so often has its source in bronchitic or pneumonic catarrh, and is not unfrequently, at least on the hills of India, associated with asthma in its early stages.

The volcanic character of the country may, no doubt, possibly exercise a preventive or curative influence. It is said to do so at Solfatara, where the vapour from the crater of an extinct volcano had, even at Naples, a great reputation, but which diminished somewhat on a closer acquaintance. But granting this, it is the one favourable consideration: and, as its influence in such a large island must be local, I am forced to believe that the assumption of immunity is maintained by the difficulty of obtaining reliable information in such a remote and sparsely populated country.

Let us now leave Iceland and proceed to the steppes of Central Asia. Here we see a vast tableland at an elevation of from 3000 to 4000 feet above the level of the sea, situated just outside the torrid zone of disease, in the same latitude as Naples or Madrid (40° N.), inhabited or rather occupied by a scattered population of nomadic tribes, dwelling in tents, or spending the greater part of their lives in the open air, and inured from childhood to a life of activity and exercise, exposed no doubt to annual extremes of temperature, but breathing continually a pure, rarefied, dry, and exhilarating atmosphere—in fact, surrounded by all the conditions which would, *à priori*, lead us to predict a considerable immunity, not only from phthisis, but many other forms of disease. Thus, so far as regards Tartary, the statement of Dr. Jagielski seems, if not absolutely, at least conditionally correct, furnishing us, however, with proofs, not against, but rather in favour of the value of mountain air; for, with the one exception of stillness of the atmosphere, the conditions are not very materially removed from those which appertain to Davos.

In conclusion, it will be seen that on examination of the *entourage*, taken in its widest sense, if the two supposed happy lands have led us to opposite conclusions, on the one hand we have been compelled to dispel the fancied security of Iceland, while, on the other, we are forced to confirm what appears to be the undeniable claims of the swarthy nomads of the steppes.

I am, Sir, your obedient servant,

D. H. CULLIMORE, F.R.C.S, &c.,
Ex-Residency Surgeon at the Court of the King of Burmah.

Devonshire-street, Portland-place, Aug. 19th, 1879.

[1] Medical Geography, p. 1189.

TREATMENT OF CHOLERA BY HYPODERMIC INJECTION OF MORPHIA.

To the Editor of THE LANCET.

SIR,—I hope you will kindly give space in your valuable journal to the following interesting case of cholera, treated successfully by the hypodermic injection of morphia.

Mrs. H——, aged twenty-two years, caste Hindoo, was found suffering from all the symptoms of a severe attack of cholera. The usual medicines were all tried, but without any good, and the symptoms went on increasing in severity. Diarrhœa and vomiting became incessant, pulse fluttering and almost imperceptible at the wrist, with severe cramps and coldness of extremities, violent and unbearable pains in the abdomen, loss of voice, and partial coma. There was total incapability of retaining even a small quantity of food or medicine in the stomach. As all known medicines had failed in abating the symptoms, I resorted to the hypodermic injection of hydrochlorate of morphia (a quarter of a grain) into the right hypochondriac region. The effect of this was, to my mind, quite marvellous. The diarrhœa and vomiting ceased at once, the pains disappeared, the pulse was re-established, and the patient rapidly recovered.

In two other similar cases of cholera treated with the same drug I have found it equally successful.

As a rule, in all cases of cholera I have been in the habit of administering pills composed of black pepper, camphor, and assafœtida, with the addition of opium, in the early stages of the disease. Out of eighty cases of cholera treated with these pills, only nine have died. These, too, would have probably been saved had they come under treatment at the proper stage.

Although these pills are not specific, they have proved very successful in my hands. The hypodermic injection of morphia deserves, in my opinion, further trials in this most formidable disease.

I remain, yours truly,

BATUKRAM S. MEHTA,
Military Officer in Charge, Sayajirow Hospital, Baroda, India.

Sayajirow Hospital, Baroda, 17th July, 1879.

THE LATE MR. CLEMENT WILLIAMS.

To the Editor of THE LANCET.

SIR,—Will you permit me also, as a friend of the late Mr. Clement Williams, of Mandalay, to express my sympathy with the excellent obituary notice of him which recently appeared in your columns. I entirely agree with your remarks concerning the loss sustained by the Government of our great Eastern Dependency through Mr. Williams being remanded to the mere routine of military duty. At Mandalay he was unquestionably the right man in the right place—a natural fitness of things which has not always obtained since Mr. Williams was removed from his official position in the Golden City. In your issue of the 9th inst. (which came under my notice only yesterday) Mr. Cullimore speaks of his deceased friend in well-deserved terms of admiration; but he is in error when he asserts that Mr. Wil-

liams was the first Englishman to visit Bhamó in recent times. Mr. Cullimore doubtless took his information from the preface to Mr. Williams's work on the "Trade Routes of Burmah," the former written, not by the author, but by his friends in England. Prior to Mr. Williams's ascent of the Irrawaddy, in 1863, Bhamó had been visited by Capt. Hannay in 1835, and by Drs. Griffiths and Bayfield in 1837. Mr. Williams, however, was the first European of recent time to direct attention to the old caravan route between Bhamó and the adjacent Chinese province of Yunnan, in attempting to open up which Mr. Margary lost his life.

Yours, &c.,

WILLIAM ROBERTSON, M.B.,
Surgeon-Major, A.M.D.

Edinburgh Castle, Aug. 19th, 1879.

BIRMINGHAM.

(From our own Correspondent.)

WHILE the inhabitants of London are groaning at the bad quality of their drinking water, the Corporation of Birmingham are most diligently improving and adding to their already ample supply of that most necessary article. A new artesian well, 150 feet deep, with further borings of a similar depth, making a total depth of 300 feet, has been sunk, and after passing through the sandstone rock, has reached an unlimited supply of pure water. To exclude all the surface water, and thus to avoid the danger of percolation, the well has been surrounded with a solid casing of masonry fourteen inches in thickness, and extending eighty feet from the surface. This latest addition to the works gives an ample and unintermittent supply to the highest parts of the borough. Coexistent with these improvements the Corporation are vigorously using their powers to compel owners of property to close all surface wells. During the past quarter no less than 103 of these death-dealing pests have received their *coup de grâce*, the medical officer of health having reported that the water supplied by them was contaminated by sewage and other impurities, and consequently totally unfit for human consumption. The pan privies are rapidly replacing the old-fashioned middens, the number in existence at the end of this quarter amounting to 30,220. It is confidently expected that these important sanitary measures will have a permanent beneficial effect upon the health of the borough.

It is much to be regretted, in the interest of the public, that the Health Committee, to whom the application from the Children's Hospital for a special grant to enable them to keep open the whole of their contagious wards was referred by the Town Council, have passed the following resolution:—"That while they are prepared to acknowledge the valuable aid which has been rendered by the Children's Hospital in dealing with zymotic diseases in the borough, and the claim the institution had for support from the public, they could not, as a matter of principle, recommend the Council to comply with the application for assistance recently received on behalf of the hospital."

The appointment of a lady to the post of assistant house-surgeon to this hospital has caused no little excitement in medical circles. The customary advertisements having been issued, the candidates offered themselves; the one a lady, a licentiate of the King and Queen's College of Physicians in Ireland, and a Doctor of Medicine of the University of Berne; the other a gentleman, a Bachelor of Medicine and Master of Surgery of the University of Edinburgh. In direct opposition to the opinion of their solicitor, who advised that the election of a female was contrary to the laws of the hospital, the committee, by twelve votes to nine, elected the lady.

Mr. Bartleet has had a very interesting case under his care at the general hospital. The patient was admitted suffering from aneurism of the superficial femoral in Scarpa's triangle. The common femoral was ligatured with catgut, but in consequence of recurrent hæmorrhage it was afterwards found necessary to tie the external iliac. Although the man lost great quantities of blood on several occasions, he eventually recovered, and has now left the hospital.

The Paris correspondent of THE LANCET has announced that "M. Dujardin-Beaumetz has discovered une femme lithographique" in whom the slightest contact gives rise to an urticarious eruption. Dr. Sawyer has a similar case under his care at the Queen's Hospital. The patient is a young man, twenty years of age, of good general health. The pressure of a hard substance for a few seconds on any part of the skin is followed by the appearance of a patch of urticaria corresponding in outline to the impression made upon the skin. The eruption attains its maximum development in from five to ten minutes, and disappears in about a quarter of an hour. At Dr. Sawyer's clinique various words and letters were written with the end of a penholder on the skin of the arms, back, and chest. These appeared in accurate outline upon the skin as an urticarious eruption, the letters standing out in bold relief in pale wheals, surrounded by the usual redness. The patient states that this condition of his skin has existed for several years, and that he has a sister similarly affected. This rare affection, referred to by many writers, seems to consist in a preternatural irritability of the muscular fibres of the skin. Dr. Sawyer suggests for it the name "urticaria scripta."

Birmingham, August 19, 1879.

AIX-LA-CHAPELLE AND SPA.

(From our Roaming Correspondent.)

WITH the return of the holiday season I find myself once more employed in describing for the readers of THE LANCET some of those baths and health-resorts which, albeit their names are familiar in their mouths as household words, are necessarily unknown, excepting to the few who have the leisure and the opportunity of visiting them. Most of the continental watering-places are to the majority mere abstractions, and it has been and will be my endeavour, by the aid of descriptions as graphic and familiar as possible, to reduce them to real concrete entities, and thus render them so much the more useful to the practical physician. It is astonishing to think of the history of some of the best-known of these resorts, and to ponder on the service which they have rendered to mankind for no one can say how many centuries. Those which have the longest histories are invariably the ones where the springs are naturally warm; and this is not surprising, for in those ages when the art of producing heat and of economising warmth was in its infancy a never-failing supply of water which bubbled up from the earth all steaming hot was naturally regarded as a great treasure and was prized accordingly. Aix-la-Chapelle has a pedigree as long as, or perhaps longer than, any of the European springs, and the abundant remains of Roman constructions which have there been found bear testimony to the fact that the race, which in arms and arts so far surpassed all contemporary nations, had erected around the hot springs of Aquæ Sextiæ, as they called the city now known as Aix-la-Chapelle, vast baths and aqueducts which almost rivalled some of the baths of Rome itself. The word "Aix," which is found also in Aix-les-Bains in Savoy, in Aix in Provence, and in Ax, a watering-place not far from the Pyrenees, is said to be merely a corruption of the Latin *Aquæ*—a theory which has more obvious probability than some of those which are put forward by philologists. Aix-la-Chapelle, unlike some other baths which the Romans patronised, has never been allowed to fall into disuse, for the patronage of the Emperor Charlemagne followed with no great interval upon that accorded by the Romans. The neighbourhood of Aix was the birthplace of Charlemagne, whose father, the famous King Pepin, had given his name to the adjacent town of Pepinster. It is highly probably that the hot springs of Aix were known to Charlemagne in his youth, and it was most likely his high appreciation of their utility that led him to make Aix the capital of the glorious empire of which he was the founder. Charlemagne's biographer, Eginhard, says of him, "that the natural hot baths were most pleasing to him. Passionately fond of swimming, he became so adept at it that no one could compete with him; and it was for this reason that he caused a palace to be built at Aix, where he dwelt continuously during the last years of his life. He invited to bathe with him not only his sons and his friends and his principal courtiers, but even the soldiers of his guard, so that often a hundred persons and more were to be found bathing at one time."

Adjoining Charlemagne's palace was a gigantic piscine, which served the emperor as a swimming bath, and in which, in spite of the nauseating smell of sulphuretted hydrogen, the great Charles and his court found a daily pleasure in performing feats of natation. This piscine has absolutely disappeared, but remains of Charlemagne's palace are still to be found around the cathedral which he built, and where his ashes still repose, and the name of *Kaiserquelle*, which the chief spring still enjoys, bears testimony to the imperial uses to which it once was put. The Kaiserquelle is the strongest of all the springs, and the others, though weaker, have a similar composition. Its temperature is 131° F., and in each litre there are contained rather over four grams of solids, in which are two grams and a half of chloride of sodium, sixty-five centigrams of carbonate of soda, forty-four centigrams of sulphates of soda and potash, twenty-two centigrams of carbonates of lime, magnesia, and iron, one centigram of sulphide of sodium, and smaller quantities of other ingredients, including iodide and bromide of sodium, silica and organic matter (seventy-five milligrams). Of gases there are contained in each litre thirteen cubic centimetres of nitrogen, 127 cubic centimetres of carbonic acid, eight cubic centimetres of oxygen, and an inappreciable quantity of sulphuretted hydrogen, notwithstanding that the odour of this gas is pungently perceptible, and the water is properly recognised as one of the most powerful of the *Hot Sulphur Springs*. The organic matter is composed of various forms of algæ, but the growth of these organisms does not seem to be so abundant as in the sulphur springs of the Pyrenees.

The names of the other springs at Aix-la-Chapelle are Cornelius, Rose, and Quirinus.

To the south of the town is a suburb called Borcette, or Bortscheid, and here also are several springs having a very similar composition to those of Aix, with the exception that the sulphuration is very faint indeed, so that these waters are classified not among sulphur waters, but rather among the *Saline-Carbonated Springs*. The Kaiserquelle supplies the chief baths of the town, including the Kaiserbad, as well as the chief drinking-fountain, which has been named Elisenbrunnen, after a former queen of Prussia, who once partook of it.

The town of Aix-la-Chapelle, when compared with other bathing resorts, comes off badly. It is situated in a hollow basin, being surrounded by hills of slight elevation on every side. To the north is the Lousberg, a steep hill which overtops the town by some two hundred feet, and which, being picturesquely planted, forms the chief pleasure ground for the inhabitants and the visitors. In the town itself there is a great absence of open spaces. The Elisengarten and the Kur-garten are merely planted courtyards, surrounded by noisy streets and high houses on every side. In these the bands play, and the visitors sit and listen, and take refreshment. They serve a purpose, as they enable visitors to sit out of doors; but they are in no wise comparable to the parks which are to be found at almost all the well-known baths. The town is well supplied with all the necessary accessories for the use and enjoyment of visitors to the mineral springs. The kurhaus contains the usual concert-rooms, reading-rooms, and refreshment-rooms. The *Kaiserbad* is a magnificent establishment, containing baths of all descriptions, enabling the visitor to make every use of the waters which science and ingenuity have devised, and to obtain every degree of luxury imaginable; and the Elisenbrunnen is enshrined in an elegant Doric portico, which is one of the chief ornaments of the town. There are numerous hotels, most of which afford all reasonable comfort.

The casual visitor will probably be struck with the fact that the male sex very largely preponderates among the cure-guests of Aix, and it is certainly a curious fact that among the fifty-five persons who sat down at the first table d'hôte at which I visited, there were only seven ladies. This is due, no doubt, to the fact that Aix has acquired a great reputation for the cure of the various forms of syphilitic disease. It is not claimed for the waters of Aix-la-Chapelle that by themselves they are able to cure syphilis, or that they render the administration of the specifics (mercury and the iodides) unnecessary. It is merely asserted that they assist the cure, that they quicken the action of the specific remedies, and that they enable them to be taken freely without the production of any ill effects. There is no doubt that many persons get safely quit of venereal taint at Aix, and the share which the waters have in this good effect is not very difficult to comprehend. It is well recognised that hot bathing quickens nutrition, and that under its influence the pulse-rate is increased and tissue-change notably accelerated. The administration of the sulphides is known also to act in a similar way; so that common sense, combined with a knowledge of sulphurous water, would lead one to suppose that the effect of the waters of Aix-les-Bains is exactly that which is claimed for them. Again, the one class of patients who do not get easily rid of the effects of syphilis, and who very often do not tolerate the administration of mercury, are those who have a scrofulous taint, and it is highly probable that the sulphur waters (whose effect in combating the various manifestations of scrofula is very generally recognised) enable the physician to disregard, as it were, some of those constitutional conditions which otherwise would prohibit the use of specific remedies. The waters of Aix are used for many other conditions besides syphilis, notably for rheumatism, thickenings round joints, congestion of the liver, the various forms of scrofula, some kinds of paralysis, and the after-effects of injuries. They are counter-indicated (as are all hot waters) in cases of heart disease, and where there is a tendency to pulmonary and other forms of hæmorrhage.

The cold, gaseous, iron water of Spa was not likely to attract the notice of barbarians, and accordingly we find that the medical history of this famous spring, which has given its name to the whole family of mineral springs, dates only from the latter end of the sixteenth century, when Collin Wolff, a blacksmith, having derived great benefit from the waters, erected a small rude hotel near the spring. André Bacci, who wrote on mineral waters in 1571, says, "Go to Spa; go there and you will be cured, poor suffering beings, for whom so many remedies have been powerless. Go there, also, fine ladies, rich lords, artists, poets. You all who have leisure go and ask of its nymphs forgetfulness, rest, sleep, and health."

Since that time this advice has been abundantly followed, and the list of notable personages who have visited Spa is a very long one. Chief among these is, undoubtedly, Peter the Great, who came here in 1717, and who may be looked upon as the *genius loci* of Spa, and to hold a position similar to that held by Charlemagne at Aix. The chief spring in the town was named after him, and is still called the Pouhon Pierre le Grand. Taking the Pouhon as the type of the mineral springs at Spa, we find that its temperature is 50°F., and that each litre contains 61 centigrams of solids, of which 12 are carbonates of soda, 19 carbonates of iron, 4 carbonates of lime, 5 chloride of sodium, 3 sulphate of soda, and the remaining 19 are composed of carbonates of potash and magnesia and other undetermined salts. There are 2½ cubic centimetres of free carbonic acid in each litre. The water is sparkling, with a slight ferruginous taste, and is one of the pleasantest of the iron springs to take. The quantity of carbonate of iron in each litre is, as nearly as possible, three grains, an amount which is by no means inconsiderable. The other springs, of which the best known are the Geronstère, Tonnelet, Sauvenière, Barisart, and Groesbeck, are all weaker than the Pouhon, and are all situated in the immediate vicinity of the town itself. The town of Spa is delightfully situated, on a dry, shaley soil, at an altitude of nearly 1000 feet above the sea level; so that visitors enjoy the advantage of a slightly rarefied air. It is surrounded with hills on all sides, the highest being on the north side. These hills are covered with woods of oak, beech, and fir, and are well provided with walks, and thus form a delightful recreation ground for those who come to Spa in search of health. Their summits can be reached either on foot or in a carriage. In the town itself there is the Promenade de Sept Heures, which is well laid out, and here the band plays during the season, and here, of course, is the chief rendezvous of the fashionable crowd who come to Spa. A few years since Spa found that it had receded somewhat from the position of fashionable pre-eminence that it formerly occupied, and that the enterprise of rival watering-places, and the modern facilities of transit, had served to attract the upper ten away from the spot, where formerly they were used to throng in crowds. The fact is that in the present day there is a strong competition amongst the various baths and health resorts, and it is self-evident that the one which succeeds in making life most agreeable, and manages to infuse most pleasantness into the process of "cure," will be the most patronised, and will attract most money towards the pockets of the townspeople. Spa has certainly awoke to the importance of this fact, and in the last

few years it has made, and is still making, great and successful efforts to keep itself in the very front rank of the rival "spas" to which it had in days gone by given, as it were, the lead. In 1868 were opened the new baths, a palatial establishment, which, for convenience, elegance, and luxury, is certainly not surpassed by any similar establishment in Europe. Here every form of hydropathy can be practised with the greatest ease and comfort, and baths can be obtained at prices varying from fivepence to three and sixpence each. This regal bath-house is one of the chief ornaments of a town which is by no means deficient in fine buildings. The Promenade de Sept Heures has lately been provided with a magnificent colonnade for use in wet weather, and the little conduit house which formerly covered the Pouhon is now being replaced by a very fine building. Many hundreds of thousands of pounds have been spent of late years in improving the town of Spa, and I feel sure that a good dividend will be forthcoming on the capital which has been employed. The old casino or redoute still exists, and the abundance and variety of the amusement provided for visitors cannot be excelled. Conveyances are to be had in plenty, and, indeed, one of the only drawbacks to this delightful spot is the number of touts who throng the streets and pester the passer-by to hire horses, carriages, &c. The municipality would do well to put a stop to this objectionable practice, and to recognise the fact that touters and beggars are equally a nuisance, and should be placed in the same category. The neighbourhood of Spa is full of interest, and provides abundant opportunities for pleasant excursions; the hotels are numerous and of every class, and the shops are of that character which is usual in similar places.

It is needless to speak of the uses of the chalybeate waters of Spa, for every physician appreciates and understands them. It is noticeable that the young ladies are very careful to protect their teeth from the effects of the iron. The water is sucked through a tube, and the teeth are cleansed by being rubbed with a sage-leaf. Perhaps a similar manœuvre might be of service to those who have to take the salts of iron at home.

Obituary.

DR. VACY LYLE.

THE tidings of the death, at Pretoria, of Dr. Vacy Lyle will be received with regret. The following particulars of the career of the deceased gentleman are gleaned from the *Natal Witness* of June 28th. Born at Stratton, in Cornwall, in 1826, Dr. Lyle, after a scholastic education at Launceston, proceeded to Edinburgh to follow the study of medicine, leaving that university with honour to settle in the town of his school-days. Here he laboured as most young men in those days had to labour; but his health broke down, and he emigrated to South Africa in 1859. When, more recently, Sir Theophilus Shepstone, his old and staunch friend, proceeded to Zululand, he asked Dr. Lyle to accompany him, which he did. Again, when the annexation of the Transvaal was on the *tapis*, Dr. Lyle was one of the first men whom Sir Theophilus Shepstone sought. In the meantime, however, in spite of these wanderings, his life had not been wasted to the scientific world. Natal produces one of the most peculiar diseases to which the human frame is subject—a disease hitherto little known to entomologists, within whose province it naturally falls. It was Dr. Lyle's endeavour to unravel the intricacies of this disease, and many a night, after a hard day's work, he spent in his studio, poring over the microscope and finding fresh wonders in the little worm under observation. Although in Natal his work was unknown, in London the *Bilharzia hæmatobia* was demonstrated through Dr. Lyle's writings. In the beginning of 1877 he accompanied Sir Theophilus Shepstone to Pretoria, and was appointed Superintendent-General of Education in the Transvaal. Here he performed his work with the same zealous care which had always distinguished him, and disarmed the prejudices of those who had taken exception to his appointment on the ground of his want of acquaintance with the Dutch language, receiving high testimony to the value of his work from Sir Bartle Frere during his recent visit to the capital of the Transvaal. Dr. Lyle died after an illness of three months, leaving a memory which will be respected and loved, as he was himself, by all who knew him.

Medical News.

THE Bideford Guardians and Rural Sanitary Authority have withdrawn from the conjoint appointment of a Medical Officer of Health.

MR. JOHN MURIEL, F.R.C.S. Eng., has obtained a superannuation allowance of £40 per annum, on resigning as medical officer for the No. 2 district of the Ely Union.

AT Bath, on Monday, a milkseller, named John Croswell, was fined £10 and costs, or fourteen days, for selling as a pint of "new milk" a mixture which, upon analysis, was found to contain 15 per cent. of water.

THE British Pharmaceutical Conference concluded its two days' sittings at Sheffield on Wednesday evening. The Conference decided to hold its next meeting at Swansea, and appointed Mr. W. Southall, of Birmingham, president for the ensuing year.

BY the published "Returns from Foreign Cities," it appears that Alexandria heads the list, with a mortality of 44 per 1000. After the Egyptian capital comes Breslau, with a death-rate of 41; then Buda-Pesth, with 39; New York, 36; St. Petersburg, 35; Berlin and Bombay, 33; Naples, 32; Munich, 31; Brooklyn, 30; Dresden and Madras, 29; the lowest being the Hague, with a death-rate of 17 per 1000.

BABY FARMING AT BRISTOL.—An inquest was opened at Bristol on Wednesday upon the bodies of two children who had been farmed out. The evidence showed that the deceased, with other infants, had been placed in charge of a Mrs. Dyer, of Bath-road, Totterdown, and they had been farmed out by her to other parties. Two women named Williams and Hooker deposed to having seen eight infants at Mrs. Dyer's house. They had taken four each from her. Some of these were placed out with third parties. Two of the children had died from atrophy and convulsions, and two others died at Mrs. Dyer's. One had been buried, but no certificate could be obtained for the burial of the other, and the police were then communicated with. Two medical men deposed that in two cases death was due to wasting away. The inquiry was adjourned.

SANITARY CONGRESS.—The Sanitary Congress and Exhibition of the Sanitary Institute of Great Britain will this year be held at Croydon. Dr. Richardson, F.R.S., has accepted the office of President of the Congress, and a large and influential committee, of which Mr. John Corry is the chairman, has been formed. Among the vice-presidents are the Archbishop of Canterbury, Earl Percy, the Earl of Egmont, the Bishop of Rochester, Mr. George Cubitt, M.P., Mr. Alexander M'Arthur, M.P., Sir Trevor Lawrence, M.P., Mr. W. Grantham, Q.C., M.P., Mr. J. Watney, M.P., &c. The Sanitary Congress is divided into three sections. Section 1. Sanitary Science and Preventive Medicine; president, Alfred Carpenter, M.D. London, J.P. Section 2. Engineering and Sanitary Construction; president, Captain Douglas Galton, R.E., C.B., F.R.S. Section 3. Meteorology and Geology; president, G. J. Symons, F.R.S. Arrangements have also been made for one or more lectures, one of which will be delivered by Professor Corfield, M.A., M.D.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mrs. Anne Holwell Danby Vernon Harcourt bequeathed £1000 to the York County Hospital, £300 each to the Harrogate Bath Hospital, the Leeds Infirmary for Women and Children, the Leeds General Infirmary, University College Hospital, St. Mary's Hospital, the Royal Hospital for Incurables, the British Home for Incurables, the West of England Eye Infirmary, the Scarborough Royal Northern Sea-Bathing Infirmary, the Memorial Fund of the National Hospital for the Paralysed and Epileptic, the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, and the Devonshire Hospital and Buxton Bath Charity, £300 to the Exeter Infirmary, and £200 to the Exeter Dispensary; Mr. William Bennett, of Codford St. Mary, has given £600 to the Salisbury Infirmary; Mr. John Bilke has given £100 to the Charing-Cross Hospital.

BOOKS ETC. RECEIVED.

W. BLACKWOOD & SONS, Edinburgh.
Catechism of Agricultural Chemistry and Geology. By J. F. W. Johnston.

DAVID BOGUE, London.
The Skin and its Troubles. (Health Primer.)
Sleep and Sleeplessness. By Dr. Mortimer-Granville.

J. & A. CHURCHILL, London.
General Index to the first Twenty-four Volumes of the Journal of Mental Science. By Dr. C. F. Blandford.
Injuries and Diseases of the Lymphatic System. By S. M. Bradley.

H. K. LEWIS, London.
Eyeball-Tension. By W. S. Watson.

J. P. LIPPINCOTT & Co., Philadelphia.
Transactions of the Pathological Society of Philadelphia. By Dr. H. C. Simes. Vol. VIII., 1877-8.

LONGMAN, GREEN, & Co., London.
Ganot's Physics. By E. Atkinson.

MACMILLAN & Co., London.
Darwinism and other Essays. By J. Fiske.

J. PARKER & Co.
The Value of Human Life. By the Rev. J. Dodd, M.A.

THACKER, SPINK, & Co., London.
Goodeve's Hints for the Management and Medical Treatment of Children in India. By Dr. E. A. Birch.

THE NEW SYDENHAM SOCIETY, London.
Bibliotheca Therapeutica. By Dr. Waring. Vols. I. and II.

TRÜBNER & Co., London.
Transactions of the American Gynæcological Society. Vol. II. For the year 1878.

WILLING & WILLIAMSON.
Fulton's Text-book of Physiology.

The Great Eastern Railway Company's Tourist Guide to the Continent. By Percy Lindley. (Simpkin, Marshall, & Co.)—A Systematic Course of Practical Qualitative Analysis. By T. Eltoft. (Simpkin, Marshall, & Co.)—The Causal Lesions of Puerperal Convulsions. By Dr. J. Tyson. (Lippincott & Co., Philadelphia.)—The Magazine of Art; August, Part XVI. (Cassell & Co.)—The Wandering Cainidæ, or the Ancient Nomads. By Dr. M. Kempf. (J. P. Morton & Co., Louisville.)—The Holy Land. By D. Roberts. Part I. (Cassell & Co.)—The Leisure Hour; August. The Sunday at Home; August. The Boy's Own Paper; August, Part VI. (The Religious Tract Society.)—The Sunday Magazine; August. Good Words; August. (Isbister & Co.)—Atlas of Histology. By Dr. E. Klein and E. Noble Smith. Part VI. (Smith, Elder, & Co.)—Fraser's Magazine; August. (Longman, Green, & Co.)—The Contemporary Review; August. (Strahan & Co.)—Medical and other Notes collected on a Holiday Tour to Arcachon, Biarritz, Pau, and the principal Watering Places in the Pyrenees. By Dr. Roth. (Baillière, Tindall, & Cox.)—The Gospel Magazine; August. (W. H. & L. Collingridge.)—Remarks on the Routine Use of the Ophthalmoscope in Cerebral Disease. By Dr. J. H. Jackson. (J. & A. Churchill.)—Hints on the Management of Infants and Young Children. By Dr. T. F. Pearse. (Biddle & Evans.)—Archives of Ophthalmology. Vol. VIII., No. 2. (G. T. Putnam & Sons, New York.)—Traite des Maladies Epidémiques. By Léon Colin. (Baillière et Fils, Paris.)—Des Paralysies Corticales du Membre Supérieur. By Dr. G. Decaisne. (J. B. Baillière et Fils, Paris.)—Etudes de Chirurgie Dentaire. By E. Brasseur. (J. B. Baillière et Fils, Paris.)—Greenhouse Favourites. Part III. (Groombridge & Sons.)—Gout and Rheumatism: its Curative Treatment. By Dr. P. A. Desjardin. (W. S. Johnson.)

Medical Appointments.

BARLING, G. H., M.R.C.S.E., has been appointed Clinical Assistant to St. Luke's Hospital for Lunatics, vice Jackson, whose appointment has expired.

CAMPBELL, C. McI., M.B., C.M., has been appointed Assistant Medical Officer to the Friends' Retreat, near York, vice Prideaux, resigned.

COX, LL., M.R.C.S.E., has been appointed Assistant Medical Officer to the Wiltshire Lunatic Asylum, Devizes, vice Michell, resigned.

CURTIN, P., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Clane and Timahoe Dispensary District of the Naas Union, at £125 per annum and fees, and £15 per annum as Medical Officer of Health, vice Hughes, resigned.

DAVISON, S., M.D., has been appointed Certifying Factory Surgeon for the District of Dromara, co. Down.

DAVY, H., M.B., has been appointed House-Surgeon to the Evelina Hospital for Sick Children, vice Paley, resigned.

GARBUTT, J. G., M.A., M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to the Female Department of the London Lock Hospital, vice Vivian.

HALTON, R. J., L.K.Q.C.P.I. & L.M., L.R.C.P.Ed., has been appointed Certifying Factory Surgeon for the district of Kells, co. Meath.

HAVILAND, A., M.R.C.S.E., has been reappointed Medical Officer of Health for the Daventry Rural Sanitary District at £73 per annum, for three years.

JOHNSTONE, J. J. S., M.D., C.M., has been appointed Medical Officer to the Midland Railway Friendly Society, Gloucester District, vice Hickes, retired from practice.

LAWLER, J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Finnea Dispensary District of the Granard Union, co. Longford, at £100 per annum and fees, and £14 per annum as Medical Officer of Health, vice Loverock, appointed to the Ballyjamesduff Dispensary District of the Oldcastle Union.

LAWTON, J. W., M.R.C.S.E., has been appointed House-Physician to the London Hospital, vice Mantle, who has been appointed Medical Clinical Assistant.

LENDON, E. H., M.B., has been appointed Obstetric Physician to the St. Marylebone General Dispensary, vice Aveling, resigned.

LUBBOCK, M., M.B., L.R.C.P.L., has been appointed a Physician to the St. Marylebone General Dispensary.

MACARTNEY, T. L., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to Court Kynaston of the Ancient Order of Foresters, Worthen.

MORISON, B. G., M.B., C.M., has been appointed Surgeon to the Ball's Pond Branch of the Holloway and North Islington Dispensary, vice Mack, resigned.

NEALE, W. H. B., has been appointed an Hon. Dental Surgeon to the Birmingham Dental Hospital, vice Fowler, resigned.

PROWSE, A. B., M.B., M.R.C.S., has been appointed Resident Registrar and Chloroformist to St. Mary's Hospital, vice Juler, resigned.

SMITH, R. H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer to the Hackney Union Workhouse at Homerton.

STRAHAN, M., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the No. 2 North Dublin Dispensary District of the North Dublin Union, vice Wilson, deceased.

TARLETON, P., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed House-Surgeon to the Victoria Hospital for Children, Queen's-road, Chelsea, vice Bisdee, whose appointment has expired.

WHEATCROFT, S. H., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Fransham District of the Mitford and Launditch Union, vice Sheppard, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARRIE.—On the 11th inst., at Southport, the wife of Andrew D. Barrie, M.B., C.M., of Elmbank, Dumfries, of a daughter.

CUNNINGHAM.—On the 13th inst., at 11, Bonnington-terrace, Edinburgh, the wife of D. J. Cunningham, M.D., of a daughter.

DAVIES.—On the 10th inst., at Huntingdon, the wife of William Morriston Davies, M.D., of a son.

DUKE.—On the 18th inst., at Fairley Villa, Putney, S.W., the wife of Stephen Duke, M.D., of a daughter.

MELDON.—On the 13th inst., at Merrion-square North, Dublin, the wife of Austin S. Meldon, F.R.C.S.I., of a son.

SMITH.—On the 10th inst., at Abberleigh House, Edgbaston, the wife of Gilbert Smith, F.R.C.S.E., of a daughter.

SMITH.—On the 12th inst., at Ryton-on-Tyne, the wife of Dr. James W. Smith, of a son.

YARROW.—On the 13th inst., at 87, Old-street, the wife of George Eugene Yarrow, M.D., of a daughter.

MARRIAGES.

ARCHIBALD—KIDSTON.—On the 13th inst., at Stirling, John Archibald, M.B., to Evelyn Howie, daughter of the late R. A. Kidston, Esq.

BOYER—BARTON.—On the 22nd ult., at Holy Trinity Church, Hadley, Shropshire, by the Rev. J. Boyer, of Quorn House, Leamington, uncle of the bridegroom, Joseph John William Robert Boyer, M.D., L.R.C.P., of Mossy Green, Shropshire, grandson of the late Rev. John William Robert Boyer, Rector of Swepstone and Snarestone, Leicestershire, to Catherine Margarette Wilhelmina (Minnie), only daughter of the Rev. J. Barton, M.A., Rector of Hadley, Shropshire, and granddaughter of the late Samuel Barton, Esq., J.P., F.R.C.S., of Bankfield, Whalley Range, Manchester.

GRIMBLY—GRIMBLY.—On the 16th inst., at St. Giles's Church, Oxford, by the Rev. R. W. M. Pope, Richard Henry Grimbly, M.R.C.S.E., of Newton Abbot, Devon, to Maria Louisa (Minnie), daughter of the late James Grimbly, of Banbury, Oxon.

PAYNE—MILLS.—On the 13th inst., at the Congregational Church, Horton-lane, Bradford, by the Rev. J. R. Campbell, D.D., assisted by the Rev. J. G. Miall, George Speke Payne, M.R.C.S., of Peterborough, eldest son of G. Payne, Esq., M.D., of East Peckham, to Frances Bessie Eva Mills, second daughter of Thomas Mills, Esq., Fletton Tower, Peterborough.

DEATHS.

BURKE.—On the 13th inst., at 88, Stephen's-green, Dublin, William Malachy Burke, F.K.Q.C.P.I., aged 60.

CANDY.—On the 15th inst., at Littlehampton, John Candy, M.D., aged 72.

DENTON.—On the 12th inst., at Leicester, Joseph Denton, M.R.C.S.E., aged 84.

GRAY.—At Peshawur, Henry A. C. Gray, M.B., Surgeon Bengal Service.

MAUND.—On the 11th inst., at Westmount, Sandown, Isle of Wight, Henry Maund, M.D., in the 52nd year of his age.

STANTON.—On the 12th inst., at 9, Montagu-square, John Stanton, M.D., aged 68.

THOMASON.—On the 9th inst., at Panama, on board H.M.S. *Osprey*, William James Thomason, M.D., Staff-Surgeon, aged 39.

TREVOR.—On the 28th of June, at San Antonio, Peru, Salusbury Lloyd Trevor, M.R.C.S.E., L.R.C.P.Ed.

WOOLDRIDGE.—On the 13th inst., at Withdeane, Brighton, Edward Wooldridge, M.D., aged 62.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

ERASMUS WILSON TRUST.

THE following are the conditions relating to the Erasmus Wilson Trust: 1. The special object of the Erasmus Wilson Trust is to promote the making of original researches in Pathology by members of the Royal College of Surgeons of England, and the publication of the results of such researches by lectures to be delivered in the College. 2. The annual income of the Trust is about £150, which income, or so much of it as shall become due under the conditions and regulations of the Trust, will be paid year by year by the Council of the College in recognition of research and publication as aforesaid. 3. The Erasmus Wilson Trust Committee of the College receives and examines for the Council the applications of persons who desire to lecture under the Trust; and annually towards the close of the calendar year the Council receives from this Committee a report on such applications, and decides what lecture or lectures it will accept under the Trust for the respective ensuing year. 4. Any member of the College who shall have made any sufficiently important original investigation in Pathology, and who, not having yet published the results of such investigation, shall be ready to make his first publication of them by means of a lecture or lectures at the College, will, unless he be a member of the College, be eligible as a candidate under the Trust. 5. Every person who desires to offer himself as a candidate under the Trust must do so by written application, describing the research which he has made, on the results of which he offers to lecture under the Trust, and the new knowledge which he believes himself able to establish in extension or correction of previous teaching in the same matter, and he must be prepared to support his application by personally furnishing to the Trust Committee such explanations or demonstrations as may be required. 6. Appointment by the Council to lecture under the Trust may in any year be of one person alone, or of two or three persons, according as the Council, in view of the different candidatures for the year, may see fit; but the lectures to be given in any one year, whether by one person or by more, will not exceed three in number. 7. No appointment by the Council can extend beyond the lectures of a single year; but the fact of having lectured under the Trust will not disqualify for further appointment, and the Council reserves discretion to itself to repeat for any number of years (if in view of the successive new candidatures it shall so see fit) the appointment of the same person or persons. 8. If at any period for appointment the Council finds no applications which it deems acceptable, it will, for that turn, refrain from making any appointment under the Trust. 9. Each person appointed to lecture under the Trust will receive, in respect of the lecture or lectures which he delivers, an honorarium of five guineas per lecture, as customarily paid for other College lectures; and he will further receive, in respect of the research lectured on, such payment as the Council, having regard to the value of the research and to the expense incurred for it, shall after delivery of the lecture or lectures see fit to award. 10. Applications with a view to lectures to be given in the coming year 1880 will be received by the Secretary of the College at any time in the month of October, 1879; but none can be received after the end of that month. In the meantime the Secretary will give to intending candidates any further explanations which they may need.

Mr. T. Woods, (Gillingham, Dorset.)—Five hundred cubic feet, *minimum*, with ample means for ventilation.

Pharmacist.—We cannot recommend an institution of the class.

EPSOM COLLEGE.

To the Editor of THE LANCET.

SIR,—I was very pleased to see in your last issue a letter from an old Epsomian, suggesting the idea of an annual dinner, with our respected late Head Master as Chairman. I feel confident that, now the subject has been mooted, it will only require the assistance of a few of our influential *quondam* schoolfellows to ensure the réunion of many an old "chum," lost to each other for the want of an organisation, now, I trust, likely to be established. Any service to promote such an object will be heartily rendered by,

Yours faithfully,

Strood, Kent, August, 1879. HERBERT E. DANIELL, M.B.

NITRITE OF AMYL IN HOUR-GLASS CONTRACTION.

To the Editor of THE LANCET.

SIR,—I have in your issue of July 19th seen Dr. Barnes's remarks upon the action of nitrite of amyl in uterine spasm. Would any of your readers be kind enough to inform me whether they have ever employed it in hour-glass contraction of the womb, and with what result?

Your obedient servant,

Dumbarton, Aug. 15th, 1879. R. M. RICHARD, L.F.P.S. Glasg.

THE ADMINISTRATION OF THE CONTAGIOUS DISEASES (ANIMALS) ACT AFLOAT.

THE Privy Council, as long as the present noble Duke presides over the practical work referred to that hydra-headed department, will never lack in decision and energy as to carrying out small administrative matters. We are rejoiced to observe much stringency in carrying out those provisions of the Contagious Diseases (Animals) Act relating to the cleansing and disinfection of vessels employed in the transport of cattle and sheep from the Continent and elsewhere. The examination of this work is entrusted to special officers appointed by the Privy Council, port sanitary authorities having nothing to do with the administration of the Act. Some few days ago the Council summoned the General Steam Navigation Company for assumed neglect in disinfecting the steam-ship *Maas*, which had recently landed a cargo of beasts from Rotterdam; but, as it appeared that no cattle were about to be taken on board, the summons was dismissed.

Mr. G. J. Gostling.—The question is one out of the medical sphere.

"THE MARKET VALUE OF MEDICAL SERVICES."

To the Editor of THE LANCET.

SIR,—Your article on "The Market Value of Medical Services" deserves the careful study of all medical men. Mr. Mill (Political Economy, Book II., Chap. XIV., Sect. 7) says: "There are kinds of labour of which the wages are fixed by custom and not by competition. Such are the fees or charges of professional persons, of physicians, surgeons, barristers, and attorneys. These, as a general rule, do not vary; and though competition operates upon these classes as much as upon any others, it is by dividing the business, not by diminishing the rate at which it is paid." Probably when Mr. Mill wrote these lines, and certainly forty years ago, they were strictly true. In the town of Lewes, Sussex, the doctors of that day had a scale of charges as definite and fixed as those of the solicitors, and never dreamt of underselling one another. What would Mr. Mill say now, when competition is as keen and underselling, as common in the medical profession as amongst the smallest shopkeepers! Forty years ago those who could pay for medical services paid a fee for medicines and advice of about five shillings, and a shilling a mile for visits outside the town; for such as could not afford this, there was the parish doctor, or the free dispensary, or the county hospital. Now, alas! we have highly educated gentlemen, graduates in Arts and Medicine of Oxford and Cambridge, selling their skill and medicines for a fee of 1*s.* 6*d.*, and others underselling them at 1*s.* and even 6*d.*! Then there are those clubs and self-supporting dispensaries you so justly condemn, as tending to lower still further the charges for medical services, and inducing persons who could pay a respectable fee to resort to them for advice and medicines for a few pence. Medical men should set their faces against all this cheap doctoring, and endeavour to arrange a fixed scale of charges. We never hear of one solicitor charging 6*s.* 8*d.* for a consultation, and another underselling him at 2*s.* 6*d.* Good advice and medicine, like good tea, cost money, and a medical man can no more supply them for 6*d.* than a grocer can sell "fine juicy congou" for 1*s.* 6*d.* The thing is not to be had at the price. When dispensing chemists charge from 1*s.* 6*d.* to 2*s.* 6*d.* for a bottle of medicine, how is it possible a medical man can sell the same—to say nothing of his time, skill, and advice—for 6*d.*? It is a noteworthy fact that in the last forty years, a lowering of the charges for medical services has gone on *pari passu* with the raising of the standard of medical education; so that, at this moment, medical men are perhaps the best educated and the worst paid of all professional men.

I am, Sir, yours truly,

DANIEL HOOPER, B.A., M.B. Lond.,

Senior Physician to the Surrey Dispensary.

Trinity-square, S.E., Aug. 15th, 1879.

M.R.C.S.E. Roy. had better apply at the Office of the Crown Colonial Agency Department, Downing-street, where no doubt the desired information can be obtained.

Dr. O'Neill's paper will appear in an early number.

"BOSTEL'S" WATERCLOSET: PARKES MUSEUM.

To the Editor of THE LANCET.

SIR,—In justice, kindly allow me space (so valuable in your journal) to correct an error you have fallen into as to the means of ventilation. The closet being very simple, and, unless explained, anyone could easily fall into the same error. By the enclosed drawing you will at once perceive the reliability and efficiency of my plan, and I give references and guarantee that not one atom of sewage gas can possibly pass through my closet into the house.

I am, Sir, yours respectfully,

DAN. THOS. BOSTEL, Sanitary Engineer.

Duke-street, Brighton, August, 1879.

A QUERY.

To the Editor of THE LANCET.

SIR,—I should like to ask the readers of THE LANCET whether anyone has found abscesses follow the injection of morphia under the skin. I do not mean at the point where the syringe enters, but in other parts of the subcutaneous tissue.

Your obedient servant,

Fulham, Aug. 11th, 1879. T. J. W.

THE SANITARY PRIMER FOR INDIA.

SOME little time ago we had occasion to report that the Government of India had offered a prize of 500 rupees for the best sanitary primer "for use in Indian schools," both English and vernacular. The primer was to be written in English, to be simple in style, "without theories," practical, and adapted to the defects of Indian towns and villages, and it was not to cover more than 24 to 30 pages of small pica print of octavo size. It would now appear that 60 primers were sent in competition, but that not one of these has satisfied the requirements of the Government of India. They proved, according to the statements of the official resolution on the subject, either too complicated or not sufficiently practical, "dealing with sanitary matters in the abstract, and not attempting to apply the recommendations made in such a way as to correct the evils which exist in the towns and villages of India" (from which it appears that while the Government asked for a *primer*, it expected a *text-book*). Two of the primers, however, are held worthy of honourable mention, and the prize is to be divided between the writers. These prove to be Dr. R. F. Hutchinson and Mr. Charles Planck, both men of large practical experience of sanitary matters in India, and the latter the singularly able medical officer of health for Calcutta. The failure to obtain the prize by any one of the competitors has occasioned considerable surprise in India, and it is shrewdly suspected that the extreme vagueness of the terms in which the prize was announced (and which it is suspected was simply a reflex of the vagueness of the proposers' minds) is at the bottom of the failure. Indeed, the *Englishman* shrewdly notes the use of the word *theories* in the advertisement of the prize, when probably *hypotheses* were meant, as a significant illustration of the qualifications of the proposers for their task.

Enquirer.—The medical practitioner in attendance will advise.

REMOVAL OF THREE CALCULI FROM THE BLADDER OF A FEMALE CHILD.

To the Editor of THE LANCET.

SIR,—Eliza W——, aged four years, fell under my charge as a dispensary patient on October 1st, 1876. She was of a strumous constitution (her mother having recently died of phthisis), and on the date of my first visit was emaciated to such an extent as to form an object of commiseration to all who saw her. I elicited from her grandmother that "she had been taking medicine for upwards of two years," also that she was supposed to be suffering from "inflammation of the bladder." A violent spasm occurring during my visit, I separated the labia, and discovered a stone presenting at the orifice of the urethra.

On the 17th October I, assisted by my friend, Dr. Duke, of Dover, proceeded to operate. Dr. Duke having placed the patient under the influence of chloroform, I dilated rapidly with three large-sized urethral bougies, passed into the bladder one after another, and retained in position for a few minutes. I then dilated to the necessary extent with my left fourth finger, seized the calculus with a pair of long straight forceps, and withdrew it. My next step was to reintroduce the finger mentioned, and with it thoroughly to explore the interior of the bladder. To my no small astonishment I discovered two other calculi, each suspended by a pellicle of mucous membrane to the fundus of the viscus, the one hanging about an inch below the other. After some little trouble, occasioned by the difficulty experienced in grasping the calculi, I succeeded in removing them.

The patient made a highly satisfactory recovery. Within the expiration of four months from the date of performing the operation she had not only entirely recovered the control of the sphincter vesicæ, but had also developed into a comparatively well-nourished child.

The weight of the fragments, still in my possession, is ninety grains. To this amount must be added a considerable quantity of débris lost at the time of operation, in consequence of one of the calculi having broken down under the pressure of the forceps used for the purpose of extraction, also sundry pieces begged of me by friends and neighbours of the patient. The stones were of the phosphatic variety.

May 1st, 1879.—The child appears in good health, and has had no return of the old symptoms.

I remain, Sir, yours &c.,

Hastings, August, 1879. JOHN BEADNELL GILL, M.D.

Mr. J. T. Jones.—We would try to make room for a shorter letter on the subject. The professors of the London medical schools have no power to grant degrees, and it is not conceivable that such a power would be granted them by the Legislature.

Mr. Thomson.—We cannot undertake to answer questions in elementary anatomy.

M.R.C.S. and L.S.A.—The subject has been pretty fully discussed.

WHAT NEXT?

To the Editor of THE LANCET.

SIR,—The advertisement below is extracted from this day's *Standard*, and I thought in the interest of the profession (of which I am a student) you would notice it. Your obedient servant,

St. Paul's-road, Islington, Aug. 20th, 1879. A. RIGBY.

"Diploma wanted; Registerable.—L. S. A., ******, London, E."

ARSENICAL WALL-PAPERS.

Messrs. Wellams and Co. having forwarded to us a large assortment of wall-papers in a variety of colours and patterns—some in green, the tints of these leaving nothing to be desired in the way of brilliancy,—we have selected from this number several patterns, including particularly those containing green pigments, and have had them subjected to analysis. We find the manufacturers' statements respecting the freedom of these papers from arsenic to be fully borne out by the results of the analysis, the samples tested not yielding a trace of arsenic. One of the patterns possessed the light and brilliant green colour which it was formerly believed could only be produced by means of arseniate of copper, or Scheele's green.

G. A. H.—We fear that there is no German medical periodical which fulfils the conditions named by our correspondent.

"LOCUM TENENS."

To the Editor of THE LANCET.

SIR,—"A General Practitioner," writing in your issue of the 2nd inst., and the two friends he quotes, must certainly have been very unfortunate. The cases mentioned are so gross that I trust and believe they are very exceptional. I am quite certain no agent in London would ever recommend a man again who acted in the manner described; but, as no particulars are given, let us hope that these were unqualified men, who unfortunately are frequently employed in the poorer classes of practice.

"A Young Locum Tenens," in your issue of the 9th inst., has certainly seated himself on a lofty pinnacle in stating that he is convinced that no really competent gentleman would ever dream of submitting to the indignity of placing himself at the beck and call of any of the agents. I have acted for agents for several years, and have had some delightful appointments by their aid, have never been submitted to any indignity by them, but have always been treated with the greatest courtesy. I am convinced that many of them have very competent and most reliable men on their lists, and the bulk of general practitioners at present use the agencies as the most reliable source from whence to get a trustworthy "locum."

The suggestion in your leading article, that the junior members of the profession who contemplate practising as pure physicians and surgeons should act as "locums" for a period of two or three years after graduation, is now before the profession, and "A Young Locum Tenens" says that the experience gained in that capacity is simply invaluable; but I doubt whether the general practitioner would care to leave a man in sole charge of an important practice for several weeks who is simply trying to gain experience. I know cases where young men have eminently distinguished themselves as students, and afterwards passed the very highest examinations, M.D. London University, F.R.C.S. by exam., &c. &c., who know nothing whatever of the routine of ordinary general practice in the country, and who would be found wonderfully wanting in that "tact," not "talent," that is required in acting for another. A practitioner might take one of these young men as an assistant to give him an insight into practice, but would hardly expect to pay four or five guineas a week, which he has to do now if he wants a "locum" of several years' experience. I am, Sir, faithfully yours,

August, 1879. AN OLD LOCUM TENENS.

An Experienced Locum Tenens, replying to the letter of "A General Practitioner" in THE LANCET of August 2nd, to the effect that where one locum tenens has been deceived by the misrepresentations of a practitioner, a dozen practitioners have been deceived by *locos tenentes*, says he thinks this a very good average! This is certainly a strange defence, and one which we should think will not be accepted by the useful class whom our correspondent represents.

EXTRAORDINARY MEDICAL DIAGNOSIS.

To the Editor of THE LANCET.

SIR,—The following wonderful diagnosis appears on the registrar's return of deaths to the medical officer of health of a town within a short distance of the Border:—

"A. B., æt. 55 years. (Cause of death): Sciatica, 2 years; valvular disease of heart, 2 years; mitral, 1 year; lardaceous liver and kidney, 6 months; debility, 4 months."

You will, doubtless, agree with me that the poor patient must have suffered awfully from this combination of ailments.

Yours &c.,

August, 1879. IGNORAMUS.

Jurisprudence.—The question is fully treated of in the text-books on Medical Jurisprudence.

Resident Surgeon.—We do not wish to aid in giving the quack extended publicity, or to afford an opportunity for imitators.

TINCTURE OF HAMAMELIS.

To the Editor of THE LANCET.

SIR,—A London doctor, now on his summer holiday, wrote to me, and recommended tincture of hamamelis, in doses of one minim every hour, for very severe recurrent pulmonary hæmorrhage, in which the usual remedies have been tried and failed. I cannot find that remedy anywhere, and thought perhaps some of your readers might be able to tell me where to get it, and something about it. Yours truly,

August, 1879. M.D.

THAMES CONSERVANCY.

THE Report of the Conservators of the Thames for the year ending December 31st, 1878, just issued as a Parliamentary paper, states that the question of deposits in the bed of the river near the metropolitan sewage outfalls at Barking and Crossness will be submitted to arbitration, the Conservators appointing one arbitrator, the Metropolitan Board of Works another, and the Board of Trade an umpire. The report further states that when the sewerage works for the city of Oxford are completed (and they are being executed under pressure from the Conservators), "the works for diverting sewage from the Thames above the intakes of the water companies will be complete."

ALBUMINURIA IN PREGNANCY.

To the Editor of THE LANCET.

SIR,—About the end of May a healthy young farmer's wife called to engage me to attend her in her confinement, expected in the middle of July. In June, 1878, when for the first time pregnant, she had aborted; why was unknown. She worked hard in her house and dairy, was rosy, and looked and felt in the enjoyment of thorough health. Accidentally I noticed a puffiness under her eyes, and made inquiries as to her urinary functions. They were performed normally, and she was evidently surprised at my asking. However, at my request she sent some of her urine, and I found it almost solidify with heat and nitric acid. To make sure there was no error, I called a few days after, and got some more of her urine, and found it as albuminous as the former specimen; and yet her health and appetite, power to work, and absence of all unusual symptoms, made her feel astonished I "made such a fuss about nothing."

Puerperal convulsions were my fear; and having in June arranged to take a holiday in Normandy, I mentioned this fear to my friend Mr. Whitfield who acted for me. On June 10th he was sent for, and hurried off with my midwifery bag, which contains, among other things, chloroform for convulsions or other cause, and ergotine solution for hypodermic injection in flooding or to hasten delivery. The house is some three miles distant, and shortly after his arrival the fœtus was born. It had been long dead. The patient recovered without an evil symptom.

Albumen is said by Litzmann to exist in the urine of more than 20 per cent. of pregnant women, and in primiparæ the percentage is larger. Braun thinks that one-fourth of the total number of albuminuriaes during pregnancy do not go to the full term. But the questions I would raise are: 1st. Granted pregnancy, is albumen invariably, or only usually, or merely occasionally, present in urine when the fœtus is dead? 2nd. Is albuminuria, or the state of system of which it is the expression, the cause or consequence of the death of the fœtus? My experience is too small to enable me to answer these questions, though I submit them as interesting, and possibly, if worked out, diagnostically useful.

I remain, Sir, yours truly,

Melksham, Wilts, July 10th, 1879. S. GROSE, M.D., &c.

Sceptic.—We have no knowledge of the statements referred to, and do not believe in the accuracy of either.

Dr. Allan Jamieson's paper will be published next week.

NITRITE OF AMYL IN SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—Since the publication of your annotation on the Treatment of Sea-sickness by Nitrite of Amyl (June 7th, 1879), there have been contributed to your columns numerous letters on this subject. Some have contained valuable observations; but for the most part they have merited the strictures laid upon them by Dr. Potter in your issue of to-day, as being hasty generalisations on insufficient data.

If gentlemen intending to test the value of the "nitrite" would in the first instance make themselves acquainted with the method of employing it, which considerable experience induced me to point out as that most favourable for its efficient action, we might arrive at some further enlightenment.

My original communication on the "nitrite" was published in THE LANCET of August 21st, 1875, and I have no alteration to make in the conditions then laid down, with the exception of permitting the administration of a larger dose if necessary. Up to ten minims may be administered with safety in the case of any *healthy adult*.

Yours faithfully,

Peak-hill, Sydenham, Aug. 16th, 1879. CROCHLEY CLAPHAM.

P.S.—I shall be happy to answer any questions addressed to me as above.

To the Editor of THE LANCET.

SIR,—As the treatment of sea-sickness by nitrite of amyl is still under discussion, I should like to add my testimony to the complete failure at present, in my hands, of that drug as a preventive of sea-sickness. I administered it in three-minim doses by inhalation to about a dozen cases, in none of which was the result at all successful. I have every reason to believe that the preparation was pure, as the treatment of a case of angina pectoris by it on the voyage home was very satisfactory.

I am, Sir, yours truly,

HAYWARD WHITEHEAD,
Surgeon to Donald Currie's Royal South African
August 18th, 1879. Mail Steamer, *Edinburgh Castle*.

UNCERTIFIED DEATHS.

To the Editor of THE LANCET.

SIR,—The following cases which occurred the other day in my practice may be interesting as bearing on the question of uncertified deaths.

In the first case, I was asked one morning to go and see, "for satisfaction," a girl who had just been delivered of a still-born child. On going, I found the patient had been confined in the night, alone, and on some of the neighbours going in that morning they had found at the foot of the bed a dead child, still attached to the after-birth. As I refused to give a certificate for burial, the policeman went to the coroner, whose reply was, that, as the child was not parted from the after-birth when the neighbours found it, and therefore was not proved to have had a separate existence, no inquiry could be held as to the cause of death.

In the other case I was asked to see a woman who had been found lying on the kitchen floor, insensible. I found her in what appeared to be an attack of hysteria, sighing, waving her arms about, &c. As I was then engaged at a confinement, I asked the people to let me know if any change took place. In a short time word was brought to me that the woman was very sick, and vomiting a good deal, and shortly afterwards that she was dead. I did not feel justified in giving a certificate; but happening to meet the registrar a few days afterwards, I asked him how he had registered the death. He said that, although he had found that the woman had had words with her husband the day before, nothing special had been brought out, and that therefore he had registered the death as "probably of heart disease." As I had frequently sounded the woman while attending her some months previously for a local affection, I think I am justified in saying that the death was not "probably" of heart disease. Comment is, I think, unnecessary.

Yours truly,

Shipdham, Norfolk, July 12th, 1879. IRVINE K. MILNE, M.D.

A REMARKABLE REQUEST.

To the Editor of THE LANCET.

SIR,—The following incident is, I think, sufficiently remarkable to merit publication.

A well-dressed and lady-like female, with a strong French accent, asked to see me, and requested that the interview might be a private one, as the subject upon which she wished to speak was, to use her own words, "a delicate" one. A young woman, a relative or friend of hers, was entitled to inherit some property if married; but, being single, there was a prospect of her losing it. As no suitable husband seemed likely to appear, she was desirous of finding some "*dying*" man, of what position it mattered not, to whom she might be formally married, and so obtain the property; while at the same time the link might be a slender one, and soon broken. This they had not been able to manage in France, where she lived, and they had accordingly sent over to a London Hospital, where they hoped for success. I was requested to find such a dying man suitable for the object. If he were a widower and had children, they would make some provision for the children. I need not dwell upon the answer given to such a request.

It would be curious to know if the same attempt has been made at other London hospitals.

I am, Sir, your obedient servant,

JOHN C. UHTHOFF,
Second House-Surgeon, Guy's Hospital.
Guy's Hospital, August 12th, 1879.

"AINHUM."

To the Editor of THE LANCET.

SIR,—The tropical disease called *Ainhum* is in all the publications about the subject, at least as far as my knowledge goes, described as confined to the little toes—e. g., in Dr. Tilbary Fox's and T. Farquhar's scheme for obtaining a better knowledge of the endemic skin diseases of India, and in the reports from these and from Dr. Seixas in Bahia, who asserts that "it occurs always in the small toes of the feet, and does not extend to any other part." Now, this is no doubt the rule; and in the few cases I have hitherto observed during two years' stay here it has been so; but it is not without exceptions, as I at this moment have a well-defined case in an old negress, where the disease has attacked symmetrically the two fourth toes, with the characteristic swelling of the toe and the ring-shaped furrow near the digito-plantar fold. The right was more advanced, and as the toe was hurting her and preventing her walking freely, it was amputated with a simple cut through the pedicle. Why the fourth toe was attacked in this case I am not able to ascertain; the patient being an old woman, imported as a slave from Africa, of a very low intellectual standing, she can only state that she has only walked barefooted, and has had the disease for many years.

I embrace the opportunity to mention that I have been able in several cases of chyluria to ascertain microscopically the presence of filaria sanguinis in blood and urine. I have published a more detailed account in the Danish medical paper, *Hospitals Tidende*, of Jan. 15th, 1879, with delineation of the animals; but as it contains nothing new to your readers, I confine myself to stating the fact, which might be so far of interest, as in my belief nobody as yet has given any communication of the existence of filaria sanguinis hominis in the West Indies.

Yours respectfully,

E. POTOFFIDAN, M.D.
St. Thomas, Danish West Indies, May, 1879.

A. D. P.—Our correspondent acted quite rightly, and this is the only way to promote sound reputation. He can afford to let the magistrate of his district do wrong, if only he is careful to do right, as he certainly did in this case.

A CURIOUS USE FOR A HOSPITAL.

To the Editor of THE LANCET.

SIR,—The opponents of the strictly official secrecy of executions will probably consider their cause to be strengthened by the facts of the recent execution of the wretched woman, Tooke, at Exeter, for child murder. The spectators of the closing scene of the hideous drama were exclusively officials of the gaol. The portion of the building selected for the strangling of the unhappy victim was, according to one account, "the hospital," and according to another, "the surgery," the drop of seven feet taking place through the floor of one room into the room immediately below. Marwood was so pleased by the arrangement that he was good enough to say that Exeter formerly had the worst, but now has one of the best, hanging places in England. Notwithstanding the high authority of his opinion, to those who consider hospitals to be sacred to the cure of disease, the selection of one as a place of execution suggests an association of ideas grim enough in all conscience; and it may be fairly asked whether such a weird misappropriation could have been sanctioned had the proposed arrangements been subjected to the criticism of public opinion and good taste, instead of having been completed with such jealous official secrecy. An expression of professional disgust may, it is hoped, prevent a repetition of such a perversion of the purpose to which alone a hospital should be devoted.

Yours truly,

August 12th, 1879. A STRANGER AND A WAYFARER.

IT is requested that provincial papers sent for the information of the Editor may be marked so as to direct attention to the medical or sanitary matters it is desired to notice.

COMMUNICATIONS not noticed in the current number shall receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. C. Macnamara, London; Dr. Duckworth; Mr. Sydney Jones; Sir Sherstone Baker; Dr. Day, London; Mr. Khory, Bombay; Dr. F. Goodchild, London; Mr. Clapham, Sydenham; Dr. Gill, Hastings; Mr. Woods, Gillingham; Mr. Gostling, Stowmarket; Mr. Ellis, Gloucester; Mr. O'Flynn, Carlow; Messrs. Rose and Co.; Mr. Walker, Aberdeen; Mr. Richard, Dumbarton; Mr. Lawrie, London; Dr. Drummond, Newcastle; Major M'Coy; Dr. Daniell, Strood; Mr. Whitehead, London; Mr. Thomson, Litnz Green; Dr. Jamieson, Edinburgh; Mr. Bostel, Brighton; Mr. Roberts, Denbigh; Mr. Armstrong, Newcastle; Mr. Flood Page, Sydenham; Mr. Parker, Liverpool; Mr. Richmond, Warrington; Dr. O'Neill, Lincoln; Dr. King, Ilfracombe; Dr. Skerritt, Bude; Mr. Jaquet, Rotherham; Dr. Smith, South Norwood; Mr. Cullimore; Mr. Morrison, Canonbury; Dr. Fairbank, Stockton-on-Tees; Dr. Weaver, Longton; Mr. Calvert, Forest-hill; Dr. Charteris, Dieppe: Messrs. Byles and Son, Bradford; Dr. Moore, Taunton; Dr. Symonds, Clifton; Dr. D. Hooper, London; Mr. Jones, Brixton; Mr. Nunn, London; Mr. Abraham, London; Mr. Allsworth, Truro; Mr. Hulke, Hull; Dr. O'Connor, March; Surgeon-Major Robertson, Edinburgh; Mr. Lawton, London; Mr. Rigby, London; Mr. Cave, Bromyard; Mr. Cotes; Messrs. Gillon and Co., Leith; Mr. Marsh; Ignoramus; M. B., London; Sceptic; A Flag Officer, R.N.; H. J., Walsall; California; M. R. C. S. E.; An Experienced Locum Tenens; M.D.; Anti-Humbug; A. K. H., Beauport; Delta; An Occasional Correspondent; M.R.C.S., L.R.C.P.; A City of Dublin Ratepayer; F.R.C.S.; Dudley; Enquirer; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Denne, Cheltenham; Mr. Smith, Edgbaston; Dr. Dobson, Windermere; Dr. Fraser, Clitheroe; Mr. Sedgefield, Winchester; Dr. Goddard, Stockport; Dr. Duke, Putney; Mr. Cartland; Messrs. Young and Postans, London; Mr. Whipple, Kew; Mr. Loeflund, Stuttgart; Mr. Hume, Lowestoft; Mr. Jones, Sheffield; Messrs. Wyman and Westwood, London; Mr. Owen, Fishguard; Admiral Stephens, Ilfracombe; Mr. Blair; Mr. Hanson, Huddersfield; Mr. Buchan; Mr. Fenwick, Teignmouth; Mr. Francis, Sutton; Mr. White, Sunderland; Mr. Matthews, Swindon; Mr. Macilhatton; Mr. Croskery, Rock Ferry; Dr. Nivison, Malvern; Mr. Weekes, Brompton; Dr. Boyer, Oakengates; Mr. Stevens, Wateringbury; Mr. Prowse, Cambridge; Mr. M'Callum, Brecon; Messrs. Gerdon, Berdoe, and Co.; Dr. Haynes, Leamington; Mr. Keogh, Brighton; Mr. Gilmour, Bishop Auckland; Mr. Shoulbread, Bath; Dispenser, Dartmouth; A. B., Liverpool; House-Surgeon; C., London; M. P. S.; Medicus, Dublin; A. B. C., Newcastle; Surgeon; S. U. N., Birmingham; Cyclops; Hunter; E. G.; M. S., Morpeth; L.R.C.P., Lond.; L. E. B., Brighton; C. P.; Mellor; W. B. A., Pangbourn; M.R.C.S.; L. A. B.; A. J., Camberwell; D. M.; Cautious; C. A., Lincoln; A. Y.; Jurisprudence; L.R.C.P.L., A.K.C.; J. W.; Sagittarius; E. H.

Journal de Médecine de Bordeaux, Gazette Médical de Paris, Manchester Guardian, Canada Lancet, Cleckheaton Advertiser, Naval and Military Gazette, Gloucester Journal, Bournemouth Observer, Boston Medical and Surgical Journal, Bucks Herald, Cambridge Chronicle and University Journal, Church of England Temperance Chronicle, Hastings and St. Leonard's Times, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 21st, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 15	29·95	E.	67	63	104	79	63	..	Overcast
,, 16	29·67	S.W.	60	57	87	68	57	0·02	Cloudy
,, 17	29·52	S.W.	56	53	..	56	53	0·43	Raining
,, 18	29·71	W.	55	53	99	70	52	0·65	Cloudy
,, 19	29·84	W.	58	56	72	64	54	..	Overcast
,, 20	29·66	S.W.	64	63	..	..	56	0·73	Raining
,, 21	29·74	S.W.	65	63	88	69	59	0·05	Overcast

Medical Diary for the ensuing Week.

Monday, Aug. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 26.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 27.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 30.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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